

Practice Test 1

2011 certification review 2

1. This fracture often occurs by a fall on the back of the hand or sudden trauma/force with the wrist flexed, also called a reverse colle's
a. Monteggia b. Galeazzi c. Richardson's d. Smith's
2. The metacarpal most often fractured "boxers fracture" is the
a. fifth metacarpal b. forth metacarpal c. first metacarpal d. second metacarpal
3. Dislocation or Fracture at the base of the second metatarsal-cuneiform joint
a. Monteggia b. Galeazzi c. Lisfranc d. Smiths
4. The following muscles make-up the pes anserine muscle group except:
a. sartorius b gracilis c. semitendinosus d. Soleus
5. During a Knee procedure if the surgeon performs a lateral retinacular release this artery must be avoided
a. superior lateral geniculate artery b. superior medial geniculate artery
c. circumflex artery d. femoral artery
6. A fat embolism is most often associated with a fracture of:
a. tibia b. humerus c. femur d. radius
7. This structure lies directly under the clavicle
a. Subclavian vein b. Subclavian artery c. brachial plexus d. axillary vein
8. _____ this lesion is an avulsion of the anteroinferior glenoid labrum where it attaches to the Anteroinferior Glenohumeral Ligament.
a. Bankart lesion b. Neer lesion c. Swanson lesion d. Fenlin lesion
9. A _____ lesion is a detachment lesion of the superior aspect of glenoid labrum; serves as the insertion of long head of biceps
a. Bankart lesion b. Neer lesion c. SLAP d. Fenlin lesion
10. During a mid-shaft humeral fracture the following nerve is at the greatest risk
a. ulna b. humeral c. radial d. Sciatic
11. In the fetus the central artery of the retina extends as far as the lens and passes through the vitreous, but previous to birth that position which is beyond the retina disappears and remains as the
a. choroids b. choroid canal c. hyaloid canal.

12. What constitutes the "pacemaker" of the heart that normally sets the beat?

- A) atrioventricular node
- B) sinoatrial node
- C) Purkinje fibers
- D) bundle branches
- E) pectinate muscles

13. Structures that unite to form the common bile duct include:

- (1) hepatopancreatic sphincter
- (2) porta hepatis
- (3) cystic duct.
- (4) common hepatic duct
- (5) duodenal papilla

- A) 1, 2
- B) 1, 2, 3
- C) 3,4
- D) 1, 3, 5
- E) 2, 4

14. The first portion of the large intestine is the: (A) sigmoid (B) cecum (C) colon (D) ileum

15. The appendix is attached to the

- (A) ascending colon
- (B) transverse colon
- (C) cecum
- (D) descending colon

16. The primary function of the gallbladder is

- (A) storage of bile
- (B) production of bile
- (C) digestion of fats
- (D) drainage of the liver

17. When the gallbladder contracts, bile is ejected into the

- (A) liver
- (B) duodenum
- (C) jejunum
- (D) pancreas

18. The area in the duodenum where the common bile duct and the pancreatic duct empty is called

- (A) the duct of Santorini
- (B) the ampulla of Vater
- (C) Wirsung's duct
- (D) an islet of Langerhans

19. The P wave displays _____ and the PR segment is caused by the delay in the AV node

- a. atrial depolarization
- b. electrical activity
- c. repolarization

20. The T wave is indicative of

- a. ventricular repolarization
- b. atrial repolarization
- c. ventricular depolarization

21. The R wave is indicative of _____ and thus *should* correspond to the patient's pulse.

- a. ventricular repolarization
- b. atrial repolarization
- c. ventricular depolarization

22. The *McBurney incision* is an oblique muscle-splitting incision which passes through the lateral abdominal musculature; what muscles would you go through?

- a. rectus sheath, rectus muscle, internal oblique muscle, peritoneum
- b. external abdominal oblique, internal oblique muscle, transversus abdominis muscle peritoneum.

23. Place the Nine abdominal layers of the inguinal region in order

- a. 1. Skin 2. Superficial fascia (Camper's layer) 3. Superficial fascia (Scarpa's layer) 4. External oblique muscle 5. Internal oblique muscle 6. Transversus abdominis muscle 7. Transversalis fascia 8. Properitoneal fat 9. Peritoneum

- b. a. 1. Skin 2. Superficial fascia (Camper's layer) 3. Superficial fascia (Scarpa's layer) 4. Transversalis fascia 5. Internal oblique muscle 6. Transversus abdominis muscle 7. External oblique muscle 8. Properitoneal fat 9. Peritoneum

24. Hernias that occur in Hesslebach's Triangle are

- a. indirect
- b. direct
- c. Richter's

25. Both direct and indirect hernias are the result of tears in the

- a. Transversalis fascia
- b. abdominal wall
- c. oblique fascia

26. What nerves must be identified during an inguinal hernia repair

- d. Iliohypogastric and ilioinguinal
- e. Inguinal and abdominal
- f. Femoral and inguinal

27. _____ hernia that contains two loops of bowel

- g. Maydl's
- h. Pantaloon
- i. Richter's hernia

28. In laparoscopic hernia repair, Stapling is also avoided in the triangular area inferior to the internal inguinal ring, called the anerve region b. triangle of doom c. femoral triangle

29. In laparoscopic hernia repair stapes should not be placed below the lateral iliopubic tract because of the
a. femoral and inguinal nerve b. obturator artery c. genitofemoral and lateral femoral cutaneous nerve.

30. The wall of the heart contains _____ layers
a. 2 b. 4 c. 3 d. 5

31. The _____ vein drains the right side of the vertebral column
a. thoracic b. lumbar c. azygos

32. Blood leaving the right ventricle enters the
a. pulmonary trunk b. left atrium c. left ventricle

33. The _____ ventricle has thin walls and develops low pressure when pumping into the pulmonary circuit to and from the adjacent lungs
a. left. B. right

34. The coronary arteries originate at the base of the ascending aorta, also known as the
a. sinuses of Valsalva b. pulmonary sinuses c. coronary sinuses

35. The left coronary artery gives rise to the
a. left and right main b. circumflex artery and left marginal c. posterior interventricular

36. The elbow joint is the articulation of the humerus with the radius and the ulna. The and _____ of the humerus articulate with the trochlear notch of the ulna and the head of the radius.

a. trochlea and capitellum b. trochlear and semilunar head c. trochlea and head

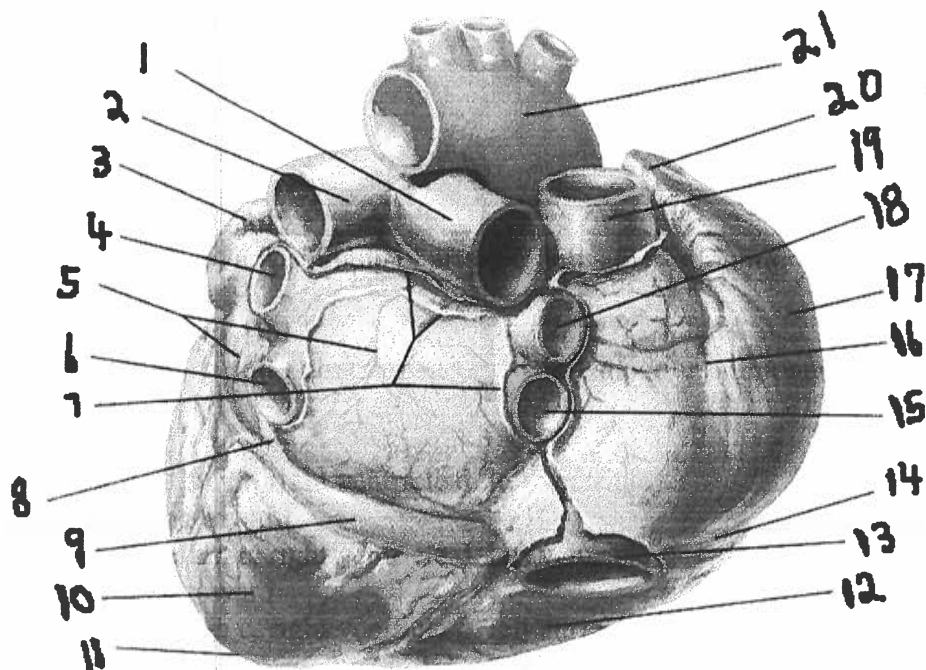
37. The _____ muscle is the important landmark in fractures of the forearm.
a. *flexor pollicis longus muscle* b. flexor digitorum c. pronator teres

38. _____ fracture involves the lower end of the radius; it is nearly transverse and within 1 inch of the articular surface of the bone.

a. Smith's b. Campbell's c. Colle's

39. This fracture is usually produced by a fall on the back of the hand with the wrist flexed, also called a reverse Colles's
a. Smith b. Campbell's c. Richardson's
40. The _____ is the most commonly fractured of all the carpal bones.
a. lunate b. trapezoid c. navicular
41. The Most common fracture of the metacarpals is the "boxers fracture"
a. fifth metacarpal b. fourth metacarpal c. first metacarpal
42. _____ is a contracture of the Palmer fascia.
a. Carpal tunnel b. De Quervain's c. Dupuytren's
43. _____ compression of abductor pollicis longus and extensor pollicis brevis tendon near radial styloid process.
a. Carpal tunnel b. De Quervain's c. Dupuytren's
44. The Liver is covered by
a. Glisson's capsule b. Gerota's fascia c. Palmer fascia
45. The Sphincter of Oddi is located in the
a. liver b. Ampulla Vater c. pancreas
46. _____ cells are the phagocytic cells of liver.
a. white blood b. Kupffer's c. Lobules
47. The junction of the superior mesenteric and splenic veins forms the
a. inferior vena cava b. femoral vein c. portal vein
48. "Surgical landmark" The duodenojejunal flexure is fixed by the
a. ligament of Treitz b. transverse flexure c. mesenteric ligament
49. The cecum, ascending colon, hepatic flexure, and proximal portion of the transverse colon receive arterial blood supply from the _____ artery
a. inferior mesenteric b. superior mesenteric c. abdominal aorta
50. The _____ artery supplies blood to the distal transverse colon, splenic flexure, descending colon, and sigmoid.
a. inferior mesenteric b. superior mesenteric c. abdominal aorta
51. Highly Selective Vagotomy (Parietal Cell Vagotomy) is the most frequently performed elective surgery for peptic ulcer disease. The procedure is accomplished by disconnecting the _____ from the lesser curvature of the stomach.
a. lateral nerves b. inferior nerves c. nerves of Latarjet

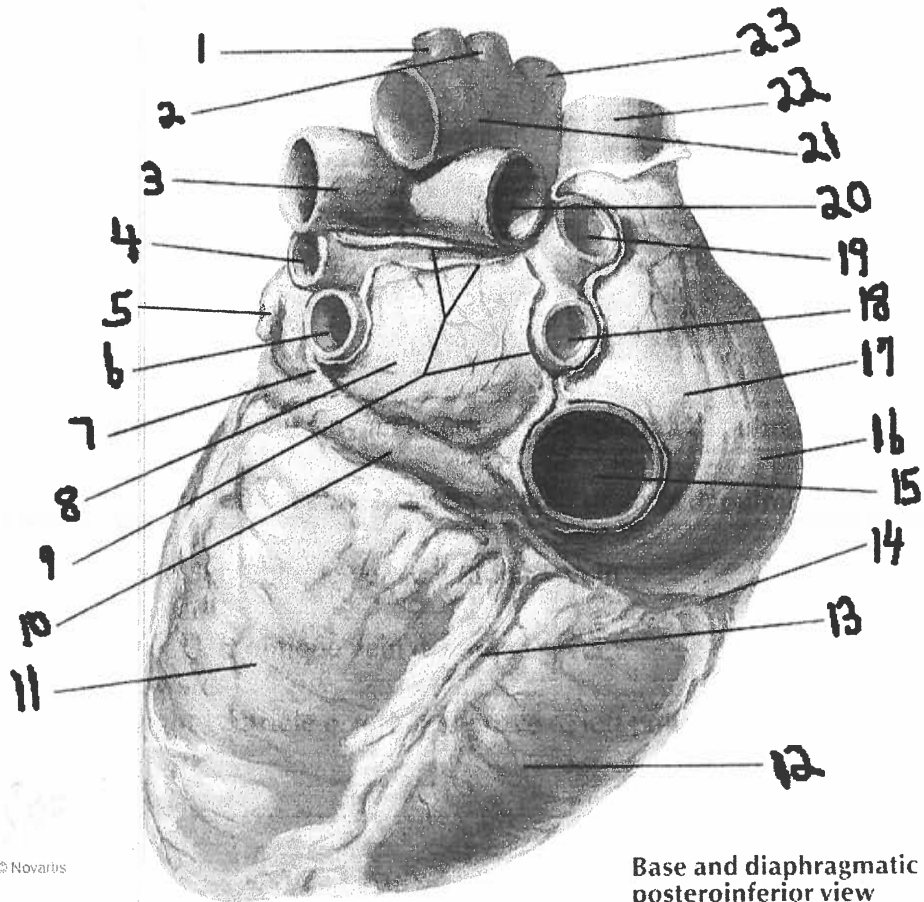
52. The Sternum is divided into _____ divisions
a. 2 b. 4 c. 3 d. 5
53. The Right lung is divided into _____ lobes
a. 2. b. 3 c. 4
54. A staghorn stone is one that lodges and continues to grow in the
(A) renal calyx(B) space of Retzius (C) ureter (D) hilum
55. In cystoscopy the irrigating solution is
(A) distilled water(B) glycine(C) mannitol (D) sorbitol
56. Which of the following is NOT considered a permanent urinary diversion?
(A) ileal conduit(B) ureterocystostomy(C) cutaneous ureterostomy (D) nephrostomy
57. A radical lymphadenectomy is performed to treat cancer of the
(A) penis (B) vas deferens (C) prostate (D) testicles
58. Microscopic reversal of the male sterilization procedure is termed
(A) spermatogenesis (B) orchiopexy (C) vasovasostomy (D) vasectomy
59. A needle biopsy of prostate may be accomplished with a
(A) butterfly needle B) angiocatheter (C) Tru-cut needle (D) taper needle
60. A transplanted kidney is placed into the
(A) retroperitoneal space (B) flank area (C) superior bladder area (D) iliac fossa



Base of heart: posterior view

Base of Heart plate

1. Number 4 is pointing toward
 - a. right pulmonary artery
 - b. left pulmonary artery
 - c. left superior pulmonary vein
 - d. right superior pulmonary vein
2. Number 18 is pointing toward
 - a. right pulmonary artery
 - b. left pulmonary artery
 - c. left superior pulmonary vein
 - d. right superior pulmonary vein
3. Number 17 is pointing toward
 - a. right atrium
 - b. left atrium
 - c. right ventricle
 - d. left ventricle
4. Number 12 is pointing toward
 - a. right atrium
 - b. left atrium
 - c. right ventricle
 - d. left ventricle
5. Number 3 is pointing toward
 - a. right atrium
 - b. left atrium
 - c. right ventricle
 - d. left auricle



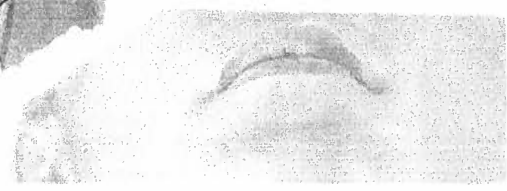
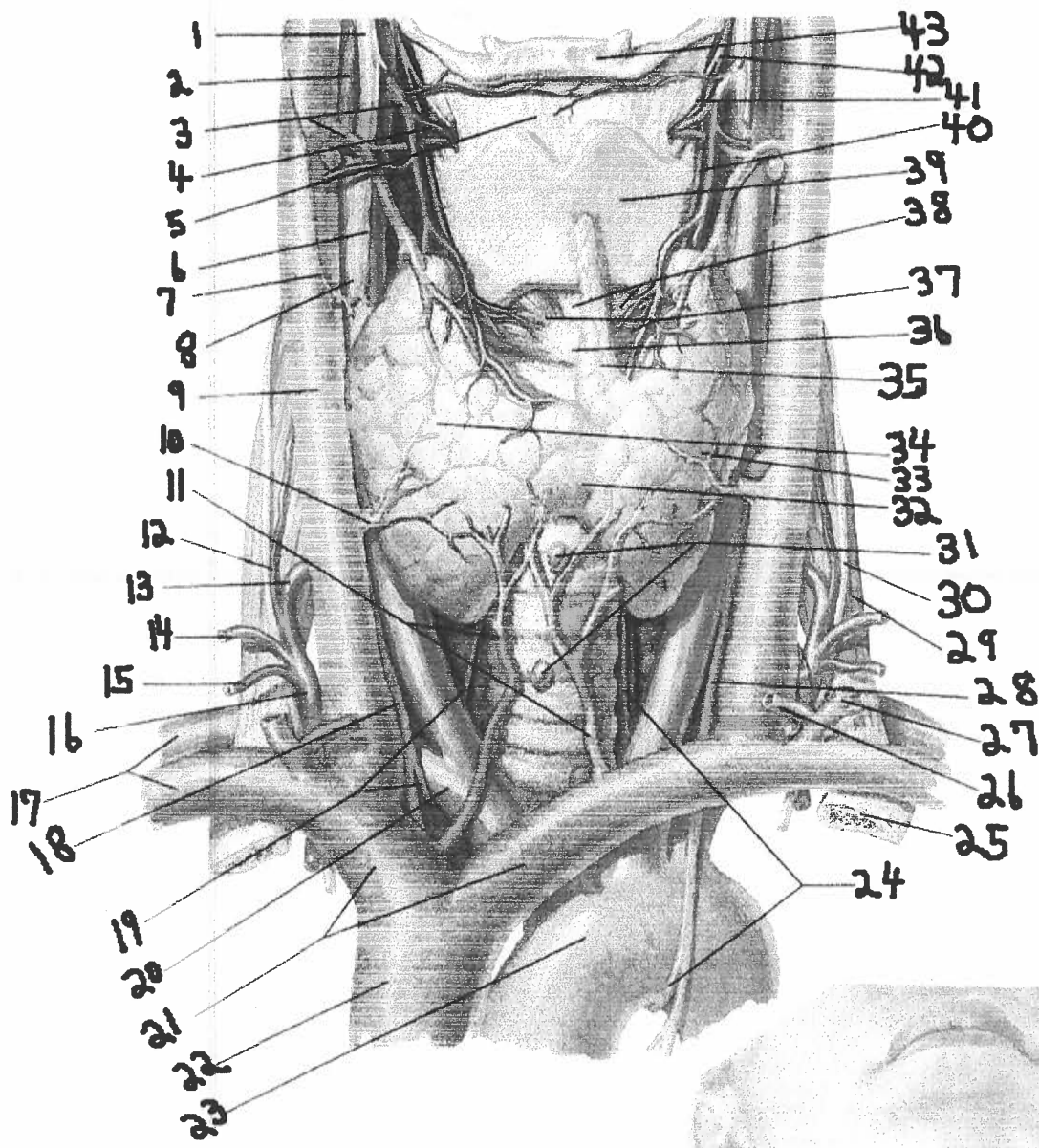
Base and diaphragmatic surfaces:
posteroinferior view

Posterior/inferior Heart plate

1. Number 1 is pointing toward
 - a. left common carotid artery
 - b. left subclavian artery
 - c. arch of aorta
 - d. pulmonary vein
2. Number 2 is pointing toward
 - a. left common carotid artery
 - b. left subclavian artery
 - c. arch of aorta
 - d. pulmonary vein
3. Number 8 is pointing toward
 - a. right atrium
 - b. left atrium
 - c. left oblique vein
 - d. coronary vein
4. Number 16 is pointing toward
 - a. right atrium
 - b. left atrium
 - c. left oblique vein
 - d. coronary vein
5. Number 14 is pointing toward
 - a. right coronary artery
 - b. right ventricle
 - c. terminal groove
 - d. left pulmonary vein

Thyroid plate

1. Number 1 is pointing toward
 - a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid
2. Number 18 is pointing toward
 - a. Vagus nerve b. phrenic nerve c. left recurrent laryngeal nerve d. external jugular
3. Number 24 is pointing toward
 - a. Vagus nerve b. phrenic nerve c. left recurrent laryngeal nerve d. external jugular
4. Number 42 is pointing toward
 - a. superior laryngeal nerve b. Vagus nerve b. Phrenic nerve c. right recurrent laryngeal nerve
5. Number 17 is pointing toward
 - a. suprascapular artery b. Thyrocervical artery c. Transverse cervical artery d. subclavian artery
6. Number 3 is pointing toward
 - a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid
7. Number 2 is pointing toward
 - a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid
8. Number 8 is pointing toward
 - a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid
9. Number 30 is pointing toward
 - a. Vagus nerve b. Phrenic nerve c. right recurrent laryngeal nerve d. external jugular
10. Number 24 is pointing toward
 - a. Vagus nerve b. Phrenic nerve c. left recurrent laryngeal nerve d. external jugular
11. Number 10 is pointing toward
 - a. inferior thyroid vein b. internal jugular vein c. middle thyroid vein d. anterior jugular
12. Number 26 is pointing toward
 - a. inferior thyroid vein b. internal jugular vein c. middle thyroid vein d. anterior jugular
13. Number 42 is pointing toward
 - a. superior laryngeal nerve b. Vagus nerve b. Phrenic nerve c. right recurrent laryngeal nerve
14. Number 15 is pointing toward
 - a. suprascapular artery b. Thyrocervical artery c. Transverse cervical artery d. subclavian artery
15. Number 13 is pointing toward
 - a. suprascapular artery b. Thyrocervical artery c. Transverse cervical artery d. subclavian artery



Practice Test 2

2011 certification review 3

1. An endoscopic procedure to treat stress incontinence is a
A) Y-V-plasty (B) stent procedure (C) Stamey procedure (D) colocolocystoplasty
2. A Pereyra procedure is done for
a. stress incontinence b. chronic bladder infection c. drainage of the bladder d. impotence
3. During a vascular procedure, monitoring the activated clotting time intraoperatively provides useful data for judging the need for reversal or addition of
(A) Angiovisist (B) papaverine (C) heparin
4. A low-molecular-weight protein that, when combined with heparin, causes a loss of anticoagulant activity postoperatively is
(A) papaverine (B) Protamine sulfate (C) tromethamine (D) Angiovisist
5. What is the purpose for the surgical creation of an arteriovenous fistula?
(A) hemodialysis (B) insertion of Greenfield filter
(C) peritoneal dialysis (D) placement of Javid shunt
6. A surgical procedure designed to stiffen or fuse a joint is called
(A) arthropexy (B) arthroplasty (C) joint fixation (d) arthrodesis
7. A lateral curvature of the spine is
(A) kyphosis (B) scoliosis (C) lordosis (d) orthosis
8. Harrington rods are used to treat
(A) femoral fracture (B) scoliosis (C) talipes defonnity (d) congenital hip dislocation
9. A rotator cuff repair is called a
(A) Bankart (B) Keller (C) McBride (d) Silver
10. The congenital deformity known as clubfoot is surgically referred to as
(A) talipes valgus (B) talipes varus .(C) hallux valgus (d) exostosis
11. The most frequent site of cartilage tears in the knee joint are at the
(A) collateral ligament (B) cruciate ligament
(C) lateral meniscus (D) medial meniscus
12. A Hakim shunt is used to
(A) treat hydrocephalus (B) aid in carotid nutrition (C) access vessels for dialysis (D) provide total parenteral nutrition (TPN) access

13. The invagination of the proximal intestine into the lumen of the distal intestine is called
(A) volvulus (B) intussusception (C) pyloric stenosis (D) ileal atresia
14. An imperforation or closure of a normal opening is called a(n)
(A) hypertrophy (B) atresia (C) stenosis (D) atrophy
15. Failure of the intestines to encapsulate within the peritoneal cavity of a newborn is
A) umbilical hernia (B) omphalocele (C) hydrocele (D) intestinal extrophy
16. Newborn vomiting, free of bile and projectile in nature, is indicative of (A) atresia of the esophagus (B) pyloric stenosis (C) volvulus (D) intussusception
17. Hirschsprung's disease is synonymous with (A) congenital aganglionosi
(B) malrotation (C) ileal stenosis (D) Meckel's diverticulum
18. The condition evidenced by incomplete closure of the vertebral arches in newborns is
(A) hydrocephalus (B) encephalocele (C) spina bifida (d) myelomeningocele
19. The condition involving premature closure of infant cranial suture lines is referred to as
(A) cranioplasty (B) stereotactic surgery (C) craniostylosis (D) transsphenoidal hypophysectomy
20. An imperforate anus means (A) anal opening is absent (B) anus is closed (C) anal sphincter is too tight (d) anal sphincter is too loose
21. Geriatric patients are more prone to each of the following EXCEPT
(A) infection (B) poor wound healing (C) cardiovascular problems (D) gallbladder disease
22. A Wilms' tumor, the most common intraabdominal childhood tumor is known as a
(A) nephroblastoma (B) neuroblastoma (C) aganglionic colon (D) intussusception
23. Incomplete closure of paired vertebral arches that can be treated surgically is known as
(A) spina bifida (B) pectus excavatum (C) spastic palsy (D) encephalocele
24. Non-closure at birth of the duct that carries blood from the pulmonary artery directly to the aorta is termed
(A) tetralogy of Fallot (B) coarctation of the aorta
(C) patent ductus arteriosus (D) anomalous venous return

25. The most common congenital cardiac anomaly in the cyanotic group is
(A) tricuspid atresia (B) tetralogy of Fallot
(C) patent ductus arteriosus (D) truncus arteriosus
26. The mechanical strength of a weak eye muscle due to strabismus in a pediatric patient can be corrected by all of the following EXCEPT
(A) tucking
(B) advancement
(C) recession
(D) resection
27. A cardiac procedure used primarily for anomalies associated with excessive pulmonary flow due to large intracardiac left- to-right shunt is called
(A) Glenn procedure (B) Blalock-Taussig procedure
(C) pulmonary bonding (D) Blalock-Hanlon procedure
28. An abnormal communication between the aorta and the pulmonary artery of an infant is termed
(A) truncus arteriosus (B) patent ductus arteriosus
(C) pulmonary stenosis (D) hypoplastic left heart syndrome
29. An emergency drug useful in ventricular fibrillation or tachycardia is
(A) Aramine (B) atropine (C) Inderal (D) calcium chloride
30. An emergency drug that increases myocardial contractility is
(A) calcium chloride (B) Levophed (C) Lasix (D) Isuprel
31. The action of sodium bicarbonate in an advanced life support effort is to
(A) stimulate the heart muscle (B) strengthen and slow heartbeat (C) reduce ventricular excitement (D) counteract metabolic acidosis
32. Xylocaine is used intravenously for (A) installation of local anesthesia
(B) treatment of cardiac arrhythmias (C) diuretic action (D) restoration of blood volume
33. The surgeon's knot:
a. can be done as an instrument tie
b. can be done as a two-hand tie
c. can be done only by the surgeon
d. band c
e. a and b
34. What happens if deep tissue layers are not reapproximated?
a. Increases the likelihood of a seroma or hematoma.
b. Creates dead space.
c. Promotes the formation of a sunken or depressed scar.

d. All of the above.

35. Which of the following about suture placement is false?

- a. placement too close to the edge will cause necrosis.
- b. Placement too far from the edge will slip or displace.
- c. Placement is not essential in wound closure.
- d. Improper placement will lead to wound breakdown.

36. In a Bankart procedure

- a. the anterior capsule is reattached to the rim of the glenoid.
- b. the glenoid is reattached to the cuff
- c. the acromion is removed

37. During a Putti-platt procedure

- a. the glenoid is reattached to the cuff
- b. capsule is reattached to the rim of glenoid, plus the lateral advancement of subscapularis to produce a barrier against dislocation.
- c. the anterior capsule is reattached to the rim of the glenoid.

38. During a Bristow procedure

- a. the anterior capsule is reattached to the rim of the glenoid.
- b. coracoid process along with attached muscles detached and inserted onto the neck of glenoid cavity, it is attached with a screw.
- c. acromion is removed anteriorly

39. The Thoracic Duct: Same length as the Spinal cord (18 inches) begins in the

- a. spinal column b. abdomen at the Cisterna Chyli c. base of the skull

40. The thoracic duct ends in the

- a. superior vena cava b. between internal jugular and subclavian vein c. aorta

41. The celiac artery is the first branch of the abdominal aorta, it is short, about .5 inch in length, It trifurcates into the

- a. left gastric artery, splenic artery and hepatic artery
- b. internal , external iliac arteries and femoral
- c. lumbar, gastric and splenic

42. The tibial and common peroneal nerves are terminal branches of the

- a. femoral b. sciatic c. splenic

43. When abduction, flexion and internal rotation of the femur on the tibia occur

- a. the medial supporting structures, the tibial collateral ligaments, and medial capsular ligament, are the initial structures injured.
- b. the lateral supporting corresponding structures are injured.

44. A Baker's cyst would be found
- in front of the knee
 - in back of the knee
 - in the shoulder
 - in the wrist
45. What is the obliterated umbilical vein called
- Coronary ligament
 - Ligamentum Teres
 - gallbladder fosa
46. What fraction of Total Liver blood flow comes from the portal vein
- one third
 - two thirds
 - one half
47. Which fracture is most commonly associated with a fat embolism
- femur
 - pelvic
 - ulna
 - radius
48. What nerve is at risk for injury in a humerus shaft fracture
- ulna
 - radial
 - median
49. What is a Monteggia fracture
- distal radius plus ulna
 - femur
 - proximal ulna plus radial head
50. What nerve is trapped in carpal tunnel syndrome
- radial
 - median
 - ulna
51. Under what structure is the nerve trapped in carpal tunnel
- fascia
 - ulna ligament
 - transverse carpal ligament
52. Which of the following could cause immediate death and is considered a potential hazard when treating an open fracture?
- Infection
 - nerve damage
 - embolism
 - death
53. Which of the following best describes motor/sensory function of the RADIAL nerve distribution?
- Ulna opposition, hand
 - wrist extension; dorsal aspect of forearm
 - arm adduction, shoulder
 - thumb opposition, hand
54. Which of the abdominal muscles originates at the pubic bone and ends in the ribs?
- rectus abdominis
 - transversus abdominis
 - external oblique
 - internal oblique
55. One of the principal muscles of the pelvic floor is the
- Sartorius
 - levator ani
 - internal oblique
 - rectus abdominis
56. The epiphyses are the
- Ends of long bones
 - Shafts of long bones
 - Bone-forming cells
 - Marrow-filled cavities within bone
57. Oil glands of the skin are called
- sudoriferous
 - ceruminous
 - sebaceous
 - hypochlorous

58. The number or pairs of spinal nerves is

- a. 12 b. 28 c. 30 d. 31

59. The cranial nerve that contains special sense fibers for hearing as well as for balance is

- a. II b. V c. VIII d. XII

60. The part of the brain responsible for maintenance of balance and muscle tone, as well as coordination of voluntary muscle, is the

- a. cerebellum b. cerebrum c. midbrain d. pons

61. The frontal, temporal, parietal, and occipital lobes are divisions of the

- a. midbrain b. interbrain c. cerebellum d. cerebrum

62. The area of the brain that controls the respiratory center is the

- a. cerebellum b. interbrain c. pons d. medulla oblongata

63. The circle of Willis is located

- a. In the axillary region b. Posterior to the ear c. At the base of the brain d. At the mid-brain

64. The branch of the external iliac artery that is located in the thigh is called the

- a. Tibial artery b. Femoral artery c. Popliteal artery d. Celiac artery

65. The descending aorta terminates at the level of the fourth lumbar vertebra, dividing into

- a. two saphenous arteries b. two femoral arteries c. internal and external iliac arteries
d. two common iliac arteries

66. The contractions of the heart are synchronized and regulated by the pacemaker of the heart, called the

- a. Sinoatrial node b. Atrioventricular node c. Atrioventricular bundle d. Purkinje fibers

67. The _____ ligament is divided during Carpal Tunnel Surgery

- a. median b. transverse carpal c. lateral d. radial

68. The following _____ degree scope is normally used in an arthroscopic procedure

- a. 90 b. 0 c. 30 d. 45

69. The normal life of Red blood Cells

- a. 120 days b. 90 days c. 6 months d. 30 days

70. Describe Planter flexion

- a. foot up b. foot down c. foot lateral d. foot medial

71. The common bile duct is the union of the

- a. cystic duct and cystic artery b. cystic duct and hepatic duct
c. cystic artery and hepatic duct d. hepatic vein and cystic duct

72. The yellow tinge in the skin symptomatic of obstructive jaundice is caused by the accumulation of what substance in the blood and tissue?

- a. cholesterol b. bile salts c. enzymes d. bilirubin

73. The head of the pancreas is located

- a. in the curve of the duodenum b. by the spleen c. on the undersurface of the liver
d. in the curve of the descending colon

74. The sphincter at the junction of the small and large intestines is the
a. Sphincter of Oddi b. Ileocecal sphincter c. Pyloric sphincter d. Duodenal sphincter

75. The portion of the small intestine that receives secretions from the pancreas and the liver is the
a. ileum b. jejunum c. duodenum d. Pylorus

76. In which of the following congenital anomalies does the urethra open on the underside of the penis?

- A. chordee
- B. epispadias
- C. Phimosis
- D. hypospadias

77. During a carotid endarterectomy, the final occlusion clamp to be removed after anastomosis is on the

- A. common carotid.
- B. internal carotid.
- C. external carotid.
- D. thyroid branch.

78. During a routine abdominal hysterectomy, the anesthesiologist notes that the patient is becoming progressively tachycardic. He notes that there has been virtually no blood loss. The surgeon requests additional muscle relaxation because the patient's abdominal musculature is "tightening up". The esophageal temperature probe indicates a core body temperature of 103°F (39°C). The anesthesiologist notices that the CO₂ monitors are alarming with high levels. The anesthesiologist turns off his anesthetic agent, hyperventilates the patient with 100% oxygen, and administers which of the following drugs?

- A. succinylcholine
- B. dantrolene
- C. atropine
- D. epinephrine

79. During cardiac arterial bypass grafting, a surgeon needs to vasodilate and stop arterial spasm. Which of the following drugs should be used?

- A. papaverine
- B. heparin
- C. protamine
- D. norepinephrine

80. A complication of steep reverse Trendelenburg position is

- A. deep vein thrombosis.

- B. arterial compression.
- C. cardiac overload.
- D. respiratory alkalosis.

81. The topical hemostatic agent thrombin should never be directly injected or allowed to enter into a vessel because

- A. it causes uncontrollable vasospasms.
- B. the effects are reversed when directly injected and cause more severe bleeding.
- C. it can cause clotting and may ultimately lead to death.
- D. the risk of infection increases with direct injection.

82. To reconstruct the pelvis after prolapse, which of the following anatomical structures could be used as a supportive repair in conjunction with the repair of a rectocele?

- A. transversalis fascia
- B. pelvic diaphragm
- C. levator ani
- D. perivaginal fascia

83. A patient is scheduled for a right thoracotomy for right upper lobectomy. The surgeon identifies that the procedure should instead be a left thoracotomy with left upper lobectomy. After all studies confirm the left thoracotomy is appropriate, which of the following should the team do NEXT?

- A. Proceed, since the team all agrees it is a left thoracotomy.
- B. Allow the patient or guardian to sign a revised permit, then proceed.
- C. Proceed, since the nurse may sign the revised consent as the patient advocate.
- D. Cross out the incorrect procedure and revise the consent, then proceed.

84. When performing compression hip screw fixation, the lag screw is inserted

- A. into the femoral neck with the threads 2 cm lateral to the fracture site.
- B. within 1 cm of the femoral articular surface.
- C. into the articular cartilage of the femoral head.
- D. in the superior aspect of the femoral head.

85. Which of the following are the most common lasers used in gynecological surgery?

- A. ruby and CO₂
- B. Nd:YAG and argon
- C. argon and ruby
- D. CO₂ and Nd:YAG

Questions 1-12 from Ureters in Male Anterior Plate

1. Number 19 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery
2. Number 9 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery
3. Number 20 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery
4. Number 17 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery
5. Number 4 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
6. Number 7 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
7. Number 21 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
8. Number 6 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
9. Number 22 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
10. Number 10 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
11. Number 3 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
12. Number 11 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery

Questions from Ureters in female superior view:

13. Number 14 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
14. Number 8 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
15. Number 11 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
16. Number 12 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
17. Number 6 is pointing toward

a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament

18. Number 1 is pointing toward

a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament

19. Number 5 is pointing toward

a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament

20. Number 15 is pointing toward

a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament

Questions 21-23 from the Posterior view; Base of Heart

21. Number 5 is pointing toward

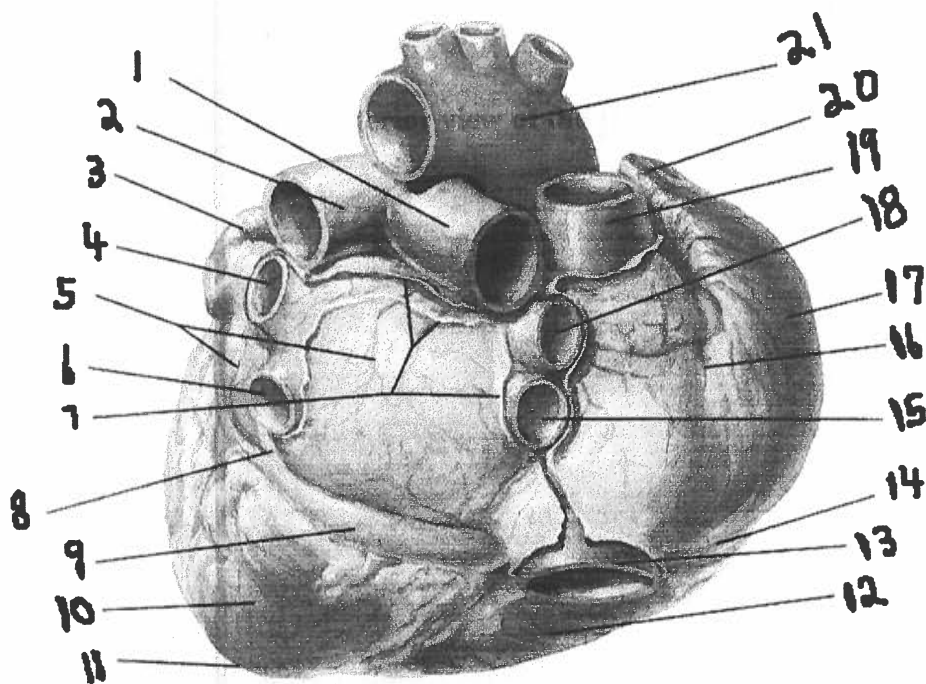
a. right atrium b. left atrium c. pericardial reflection d. right ventricle

22. Number 17 is pointing toward

a. right atrium b. left atrium c. pericardial reflection d. right ventricle

23. Number 7 is pointing toward

a. right atrium b. left atrium c. pericardial reflection d. right ventricle



Base of heart: posterior view

Questions 24-26 from the Posteroinferior view of the Heart

24. Number 18 is pointing toward

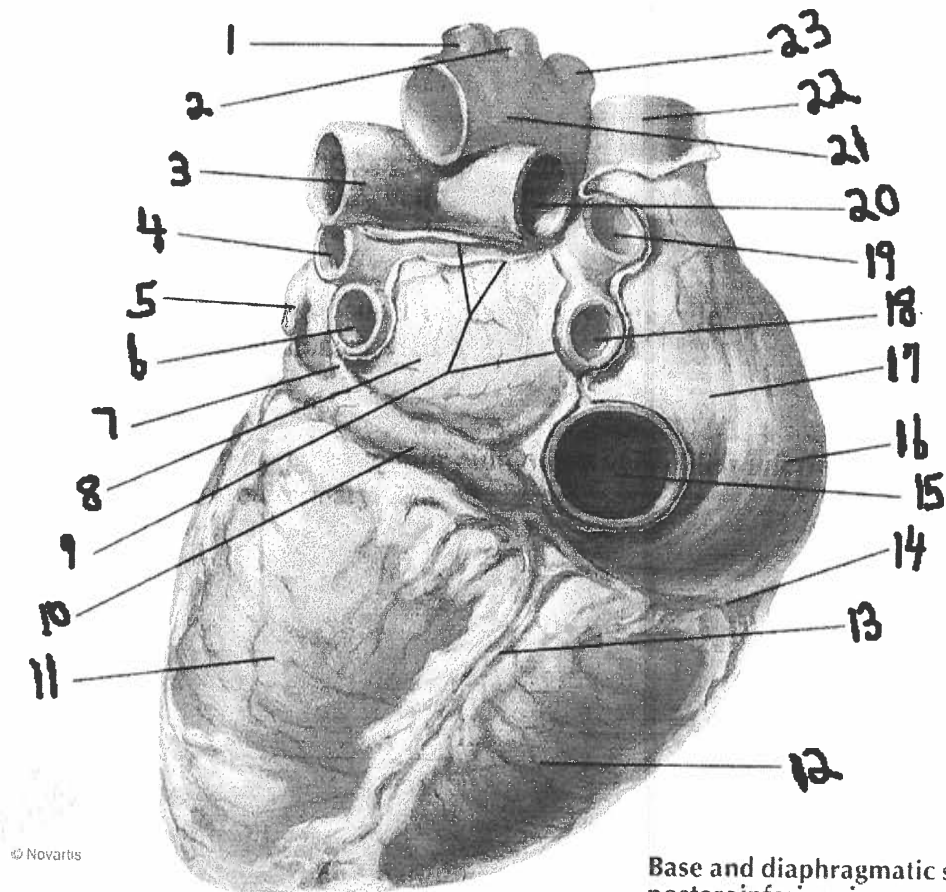
- a. right inferior pulmonary vein
- b. right superior pulmonary vein
- c. left inferior pulmonary vein
- d. left superior pulmonary vein

25. Number 4 is pointing toward

- a. right inferior pulmonary vein
- b. right superior pulmonary vein
- c. left inferior pulmonary vein
- d. left superior pulmonary vein

26. Number 19 is pointing toward

- a. right inferior pulmonary vein
- b. right superior pulmonary vein
- c. left inferior pulmonary vein
- d. left superior pulmonary vein



Base and diaphragmatic surfaces:
posteroinferior view

Questions 27-30 are from the Thyroid plate

27. Number 42 is pointing toward

- a. internal carotid artery
- b. superior Laryngeal nerve
- c. external carotid artery
- d. internal jugular vein

28. Number 2 is pointing toward

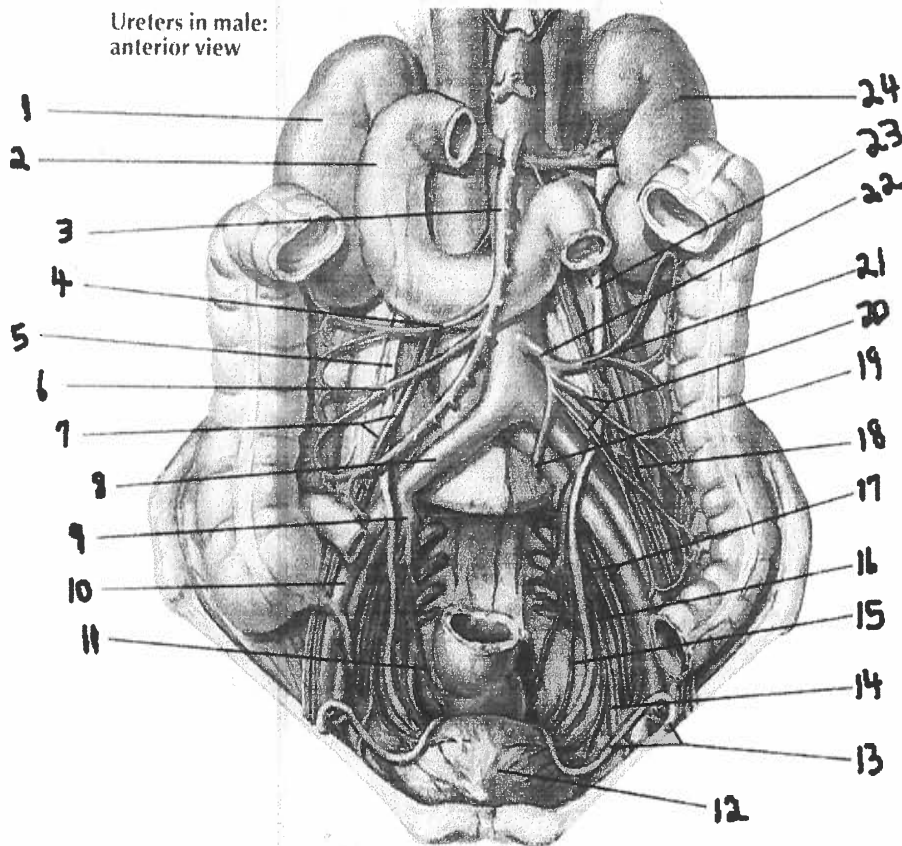
- a. internal carotid artery
- b. Superior Laryngeal nerve
- c. external carotid artery
- d. internal jugular vein

29. Number 9 is pointing toward

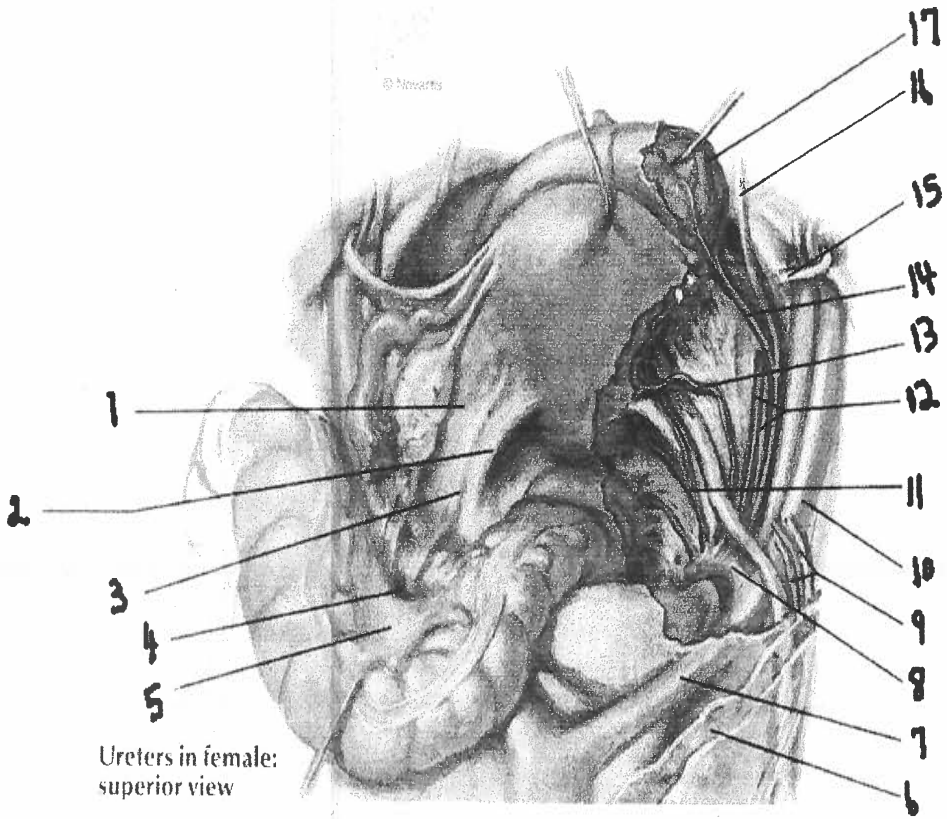
- a. internal carotid artery
- b. Superior Laryngeal nerve
- c. external carotid artery
- d. internal jugular vein

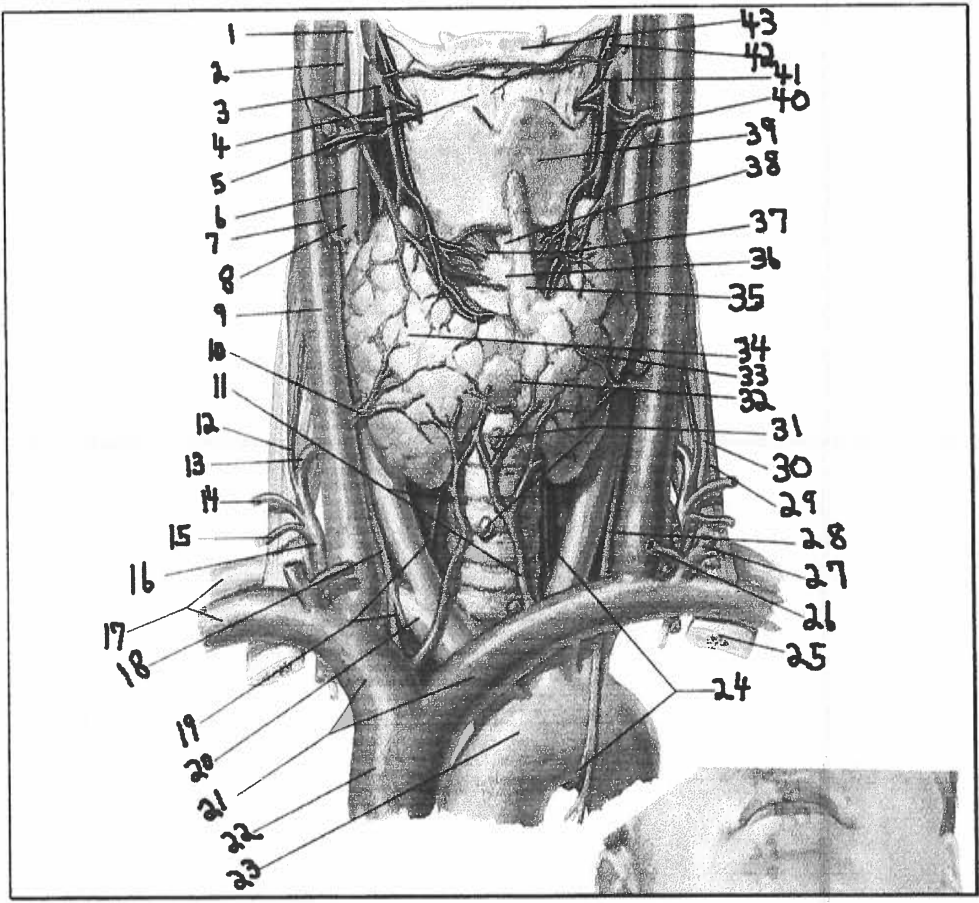
30. Number 1 is pointing toward

- a. internal carotid artery
- b. Superior Laryngeal nerve
- c. external carotid artery
- d. internal jugular vein



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Practice Test 3

2011 certification review 4

1. The head of the femur articulates with this acetabulum fossa to form the hip joint. One border of this fossa is deficient creating a C-shaped fossa, this gap is bridged by the _____ ligament.

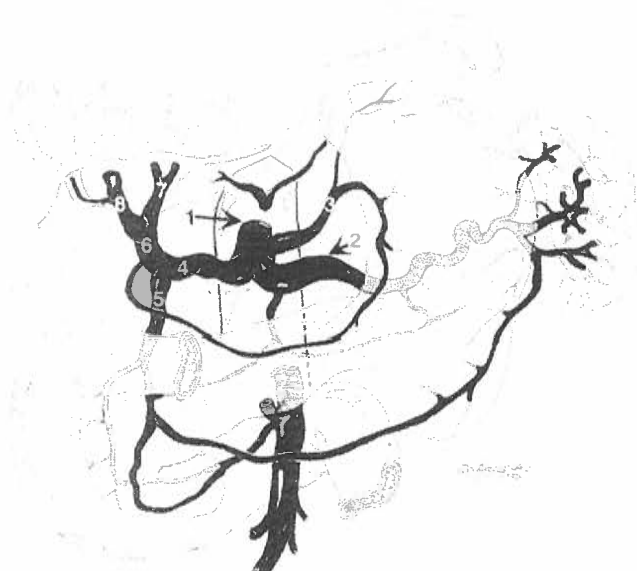
- a. inguinal b. transverse c. labrum d. pelvic

2. The edge of the acetabular fossa is deepened by a rim of fibrocartilage forming the acetabular _____ which encloses most of the head of the femur thus increasing the stability of the hip joint.

- a. labrum b. joint c. fossa d. ligament

3. The acetabulum is composed of a. ilium, ischium, pelvis b. anterior, posterior pelvis c. ilium, ishium, pubis

4. Identify the arterial branches of the celiac trunk: Right and left hepatic, proper hepatic, celiac trunk, splenic trunk, left gastric, common hepatic, gastroduodenal.



5. What is the most common liver cancer

- a. metastatic disease b. hemangioma c. Hepatocellular carcinoma d. Focal nodular hyperplasia

6. What is the most common primary malignant liver tumor

- a. metastatic disease b. hemangioma c. Hepatocellular carcinoma d. Focal nodular hyperplasia

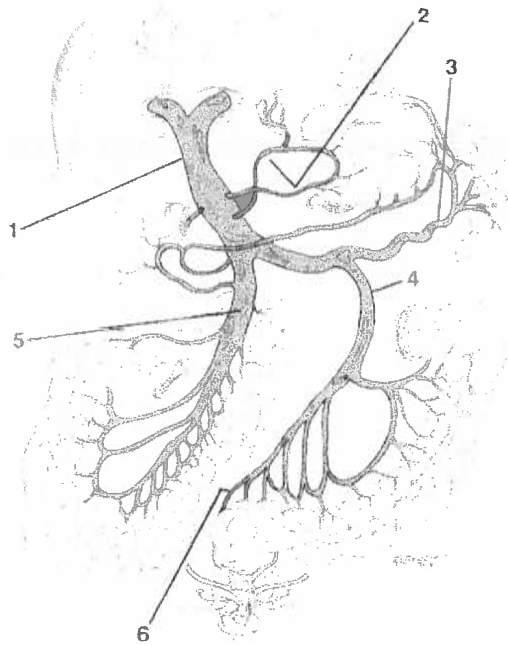
7. What is the most common primary benign liver tumor

a. metastatic disease b. hemangioma c. Hepatocellular carcinoma d. Focal nodular hyperplasia

8. Removal of all liver tissue to the right of the falciform ligament is called

a. right hepatic lobectomy b. left hepatic lobectomy c. right trisegmentectomy

9. Define the anatomy of the portal venous system: inferior mesenteric vein, superior mesenteric vein. Superior hemorrhoidal vein, splenic vein, coronary vein, portal vein



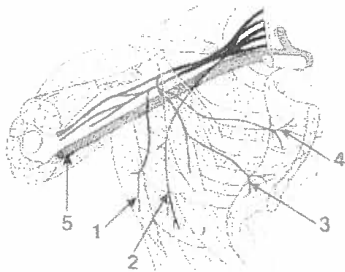
10. What is the most common cause of portal hypertension in the United States

a. cirrhosis b. cancer. c. schistosomiasis

11. Name the structures of the Biliary tract: common bile duct, ampulla of vater, intrahepatic ducts, right hepatic, left hepatic, gallbladder, cystic duct, common hepatic duct.



12. Valves of the gallbladder are called
 a. calot's b. Heister c. hepatic
13. Which artery is susceptible to injury during a cholecystectomy
 a. splenic b. right hepatic c. left hepatic
14. increased WBC, bilirubin, alkaline phosphatase; positive blood culture would be associated with
 a. cholangitis b. pancreatitis c. flu
15. Tumor that involves the junction of the right and left hepatic ducts
 a. Klatskin b. Gilbert c. Courvoisier's
16. Identify the nerves in the axilla region below: lateral pectoral, medial pectoral, long thoracic, thoracodorsal, axillary vein



17. This nerve Courses along lateral chest wall in midaxillary line on serratus anterior muscle; innervates serratus anterior muscle
 a. thoracodorsal b. long thoracic c. lateral pectoral
18. This nerve Courses lateral to long thoracic nerve on latissimus dorsi muscle; innervates latissimus dorsi muscle
 a. thoracodorsal b. long thoracic c. lateral pectoral

19. Name of the cutaneous nerve that crosses the axilla in a tranverse fasion, that many surgeons try to preserve
a. thoracodorsal b. long thoracic c. lateral pectoral d. intercostobrachial nerve
20. Name of the large vein that marks the upper limit of the axilla
a. axillary b. radial c. mammary d. pectoral
21. What ligament connects the Thyroid to the trachea
a. Berry b. recurrent c. lateral d. posterior
22. Which paired nerves must be carefully identified during a thyroidectomy
a. inferior thyroid b. recurrent laryngeal c. superior laryngeal d. inferior laryngeal
23. What other nerve is a risk during a thyroidectomy
a. inferior thyroid b. recurrent laryngeal c. superior laryngeal d. inferior laryngeal
24. The appendix is attached to the
A. ascending colon. B. descending colon. C. cecum. D. transverse colon.
25. The double-layered, apron-like structure that hangs from the lower border of the stomach, covering the intestines, is the
A. greater omentum. B. mesentery. C. ligamentum. D. peritoneum.
26. A chemical reaction that provides energy by the breakdown of food molecules is called
A. catabolism B. metabolism. C. glycogenesis.
27. The structure that binds the small intestine to the posterior abdominal wall is the
A. mesentery. B. greater omentum. C. falciform ligament. D. lesser omentum.
28. Phagocytosis by the white blood cells is an example of the body's
A. first line of defense. B. second line of defense. C. third line of defense.
D. fourth line of defense.
29. Cell "drinking" is called
A. phagocytosis. B. pinocytosis. C. osmosis. D. diffusion.
30. Inanimate particles that can be vectors for infection are called
A. transient flora B. carriers. C. fomites. D. resident flora.
31. An organelle that is responsible for the packaging of proteins is the
A. Golgi complex. B. mitochondria. C. cilia. D. nucleus.
32. An organelle that contains digestive juices is the
A. nucleus. B. lysosome. C. ribosome. D. Golgi complex.
33. The division of a reproductive cell into two cells with 23 chromosomes each is called
A. mitosis. B. meiosis. C. spontaneous generation. D. cytokinesis.
34. Which of the following is not an inhalation anesthetic agent?
A. Enflurane (Ethrane) B. Fentanyl citrate and droperidol (Innovar)
C. Ether D. Nitrous oxide
35. The intravenous barbiturate general anesthetic used for induction most frequently is
A. thiopental (Pentothal). B. nitrous oxide. C. diazepam (Valium). D. ketamine.
36. Cephalothin sodium (Keflin) is a/an
A. antibiotic. B. steroid. C. diuretic. D. mydriatic.

37. Indirect arterial blood pressure is obtained with a
A. radial artery catheter. B. sphygmomanometer. C. Swan-Ganz catheter D. CVP line.
38. An emergency drug used in cardiac surgery that increases myocardial contractility is
A. calcium chloride. B. levarterenol (Levophed). C. isoproterenol hydrochloride (Isuprel). D. furosemide (Lasix).
39. A drug used to reverse hypotension is
A. isoproterenol hydrochloride (Isuprel). B. propranolol hydrochloride (Inderal).
C. procainamide hydrochloride (Pronestyl) D. levarterenol (Levophed).
40. Meperidine hydrochloride (Demerol) is a
A. analgesic. B. bronchial dilator. C. vasoconstrictor. D. sedative.
41. A radiopaque contrast medium used in surgery is
A. methylene blue. B. renografin. C. indigo carmine. D. gentian violet.
42. Another name (trade name) for epinephrine is
A. levarterenol (Levophed). B. atropine
C. Adrenalin. D. procaine.
43. Cardiac arrhythmias of ventricular origin can be treated with
A. sodium bicarbonate. B. atropine.
C. lidocaine. D. furosemide (Lasix).
44. Dextran is used parenterally to
A. expand blood plasma volume. B. nourish vital tissue.
C. carry oxygen through the system. D. increase blood viscosity.
45. A barbiturate that may be used for sleep the night before surgery is
A. diazepam. B. meperidine. C. secobarbital (Seconal). D. scopolamine.
46. The doctrine of respondeat superior refers to
A. the legal terms for assault and battery.
B. employer liability for employee's negligent conduct.
C. professional misconduct.
D. "the thing speaks for itself."
47. The legal doctrine that mandates every professional to carry out his or her duties according to national standards of care practiced throughout the country is the
A. doctrine of reasonable man.
B. doctrine of res ipsa loquitur.
C. doctrine of respondeat superior.
D. doctrine of informed consent.
48. Liability is a legal rule that
A. applies only in criminal actions.
B. holds each individual responsible for his or her own actions.
C. holds the hospital responsible for its personnel.
D. holds the surgeon responsible for everything.
49. The left gastric, right gastric, right gastroepiploic, left gastroepiploic, and short gastric arteries supply the:
a. spleen b. stomach c. duodenum d. kidney

50. What space lies behind the stomach
a. lesser sac b. retro-space c. antrum d. fundus
51. Adnexa refers to
a. adrenal glands b. sympathetic nerve fibers c. outer most layer d. accessory organs
52. A drop is denoted by the abbreviation
a. gt b. g c. cc d. mL
53. The abbreviation ung refers to
a. tincture b. ointment c. as directed d. spirits
54. Proximal is a term that indicates a point
a. nearer to the body b. farther away from the body c. in the center of the body d. toward the head
55. Adduction means
a. movement away from median plane b. movement toward median plane
c. movement superiorly d. movement inferiorly
56. Ischemic can be defined as
a. a decrease supply of oxygenated blood to a body part or organ
b. a sharp posterior bony projection of the pelvis
c. a painful sensation
d. the transmission of pain impulses to the hip bone
57. A differential count provides an estimate of
a. The amount of hemoglobin b. The volume percentage of red cells c. The percentage of each type of white cell d. Electrolyte percentages
58. Mixing of incompatible bloods may result in
a. agglutination b. infectious hepatitis c. leukocytosis d. hyperglycemia
59. In the normal adult, the average number of leukocytes per cubic millimeter of circulating blood is
a. 1000 – 4000 b. 3000 – 8000 c. 5000 – 10,000 d. 10,000 – 15,000
60. A large superficial vein in the lower extremity, which begins in the foot and extends up the medial side of the leg, the knee, and the thigh, is called
a. Femoral b. Greater saphenous c. iliac d. popliteal
61. The vein in the bend of the elbow that is commonly used as a site for venipuncture is the
a. Subclavian vein b. Cephalic vein c. Median cubital vein d. Basilic vein
62. Each of the following agents must be applied using dry gloves or instruments EXCEPT
a. Gelfoam b. Collastat c. Avitene d. Helistat
63. An anticoagulant given subcutaneously, intravenously, or as a flush is
a. nitroglycerin b. dextran c. heparin d. thrombin
64. A drug that decreases the tendency of blood platelets to clot is
a. Warfarin sodium b. Diazepam c. lorazepam d. midazolam HCl
65. An antibiotic used intraoperatively is
a. Diazepam b. Ketoralac c. Cyclogyl d. Gentamicin

66. A drug that could be used to reverse the effect of muscle relaxants is
 a. Narcan b. protamine sulfate c. Prostigmin d. Valium
67. Compazine is
 a. An antiemetic b. A sedative c. A tranquilizer d. An anticholinergic
68. Which of the following is NOT true of osteoarthritis?
 A. Recreational running does not increase incidence.
 B. A key component is inflammation of symmetrical joints.
 C. It is characterized by articular stiffness that lasts less than 15 min.
 D. Obesity is a risk factor for development.
 E. It is the most common form of joint disease.
69. Effective treatment of gout includes
 A. Starting the patient on loop diuretics
 B. Placing the patient on a high-protein diet and moderating alcohol intake
 C. Using steroids in doses of 40 mg/day as first-line treatment to quell inflammation of acute attacks
 D. Treating hyperuricemia immediately with uricosuric agents
 E. Placing the patient with an acute attack on bed rest for about 24 h after the attack has subsided
70. Which of the following statements is true about gout?
 A. It has equal prevalence in men and women.
 B. Its highest incidence is in Hispanic populations.
 C. Onset in women is usually postmenopausal.
 D. Tophi typically develop in the ears, hands, and other tissues shortly after the first attack.
 E. Crystals appear rhomboid under light-microscopy.
71. Which of the following diseases has been demonstrated to reduce life expectancy?
 A. Rheumatoid arthritis B. Osteoarthritis C. Gout D. Degenerative joint disease
 E. Chondrocalcinosis
72. A 53-year-old man presents with complaints of back pain that he attributes to "lumbago." History reveals that this patient has a 30-pack-year smoking history. He has been trying to lose some weight and has done better than expected, losing 20 lb in the last 6 wk. He denies morning stiffness but complains of "sore joints" in his hands and wrists made worse with activity. What diagnostic concern does this history raise?
 A. Rheumatoid arthritis B. Prostate cancer with metastasis C. Reiter syndrome D. HNP of the lumbar spine E. Ankylosing spondylitis
73. Which is true of the musculoskeletal system?
 A. Peak bone mass is reached at about 25 years of age for men and 40 years of age for women.
 B. Bone growth is completed at about age 20 in both genders.
 C. Long bones increase in length by growth from ossification centers in calcified cartilage.
 D. Bones are stronger than ligaments until adolescence.
 E. During late pregnancy, the degree of normal lordosis decreases to shift the center of gravity over the lower extremity.

74. Which of the following patients is LEAST likely to develop osteoporosis? (All are post-menopausal.)
- A. A 62-year-old African American woman with hypertension
 - B. A 63-year-old Caucasian woman in good health
 - C. A 62-year-old Asian woman with a history of HPV infection
 - D. A 61-year-old Native American woman in good health
75. 6.13 A 21-year-old patient arrives in the emergency department with a leg injury secondary to an MVA. X-ray examination reveals a fracture of the tibia. You note that there is a large free-floating piece of bone between well-defined fracture lines superior and inferior to it. This would be most correctly described as a fracture.
- A. Segmental B. Comminuted C. Spiral D. Torus E. Transverse
76. A 5-year-old child suffers an injury to her lower extremity when she falls approximately 8 ft and lands in the standing position. What type of Salter fracture is most likely?
- A. Type I B. Type II C. Type III D. Type IV E. Type V
77. A 12-year-old boy sustains a non-displaced fracture of the ulna. Which of the following splints would be appropriate for initial immobilization?
- A. Long arm gutter B. Short arm gutter C. Cock-up D. Sugar tong E. Thumb spica
78. Which nerve is tested by having the patient spread and push the fingers together against resistance?
- A. Median B. Ulnar C. Radial D. Digital
79. 4-year-old child is brought to the office due to an arm injury. An impatient baby-sitter pulled on the hand of the child and now the child refrains from using that arm. The patient is in no apparent distress. Choose the correct statement concerning this condition.
- A. This injury is most common in 7- to 10-year-olds. B. Treatment involves extending the elbow.
 - C. Frequently the neurovascular exam reveals radial artery compromise.
 - D. The injured arm is usually held in pronation and flexion.
80. The recommended treatment of shin splints is
- A. Ultrasound therapy B. Cessation of offending activity for several weeks
 - C. Rest x 3 days followed by application of heat D. NSAIDs
 - E. Application of brace during activity
81. The preferred initial treatment for a wrist ganglion is
- A. Forceful compression with a book B. Injection with steroids
 - C. Aspiration and chemical cauterization D. NSAIDs E. Surgical excision
82. A 30-year-old man presents with left shoulder pain. There is no history of acute injury, but the patient participates in several sports. Examination reveals tenderness approximately 2 cm below the tip of the acromion. There is also pain in the left shoulder as the patient supinates against resistance. (A positive Yergason test—supination against resistance and point tenderness over the tip of the acromion) What is the most likely diagnosis?
- A. Rotator cuff tear B. Adhesive capsulitis C. Rotator cuff tendonitis D. First degree sprain of AC joint
 - E. Bicipital tendinitis

83. A 17 year Old high school cheerleader presents with difficulty walking and ankle pain after landing on her dorsiflexed foot during practice. She states it felt like someone kicked her in the back of the leg. (rupture of the Achilles tendon) Choose the true statement concerning this case
- A. Standard ankle x-rays are just as helpful in the diagnosis as MR!
 - B. This patient will probably not be able to walk on her toes.
 - C. There will be weak or absent plantar extension. D. Initial treatment is surgery.
 - E. This condition often occurs with repetitive hill running.
84. A patient with adhesive capsulitis
- A. Complains of decreased ROM of the shoulder B. Is likely to be elderly
 - C. Often is unable to raise the arms above the head D. Demonstrates a decrease in passive ROM
 - E. All of the above
85. Which statement is true concerning spinal tumors?
- A. Spinal tumors are common bone tumors.
 - B. Pain made worse with activity suggests a tumor.
 - C. Multiple myeloma is the most common malignant primary bone tumor.
 - D. Although common, tumors in the vertebral body are usually benign.
 - E. Most spinal tumors in people under 21 years of age are malignant.
86. In the evaluation of the patient with LBP, x-rays should be ordered routinely EXCEPT
- A. For suspected fracture
 - B. For suspected infection of the spine
 - C. To identify degenerative changes
 - D. For suspected developmental abnormality
 - E. For medicolegal documentation for worker's compensation
87. Which of the following is the most common cause of low back pain in children and adolescents? (Pars defect)
- A. Scoliosis
 - B. Herniated lumbar disc
 - C. Spondylolysis
 - D. Spondyloesthesis
 - E. Spinal stenosis
88. Painless, hard nodules located at the PIP joints on the hand of a 58-year-old laborer are probably associated with ? (referred to as Bouchard's nodes)
- A. Rheumatoid arthritis B. Reiter syndrome C. Osteoarthritis
 - D. Tophaceous gout E. Ankylosing spondylitis
89. A 32-year-old female patient with a positive Tinel test should also demonstrate (median nerve entrapment)
- A. Numbness of the 4th and 5th digits
 - B. Decreased ulnar nerve conduction velocities
 - C. A positive Finkelstein test
 - D. Thenar atrophy
 - E. Weakness of wrist

90. Which bursa is particularly susceptible to developing septic bursitis?
A. Ischial B. Subacromial C. Olecranon D. Trochanteric

91. The most commonly injured ligament in the knee is the _____. Caused by a direct blow to the lateral side of the knee.

a. anterior cruciate b. posterior cruciate c. lateral collateral d. medial collateral e. medial meniscus

92. The most commonly injured structure in the knee is the _____.

a. anterior cruciate b. posterior cruciate c. lateral collateral d. medial collateral e. medial meniscus

93. Which of the following is considered the drug of choice for patients with rheumatoid arthritis

a. methotrexate b. gold salts c. corticosteroids

94. Which of the following methods of suturing should be used to close a deep layer located on the medial edge of a myocutaneous flap closure of a sacral decubitus ulcer?

A. simple running with 0 Vicryl SH

B. Cushing suture with 1 Prolene FS

C. Halstead suture with 0 Vicryl CTX

D. half-buried mattress suture with 0 PDS FS

95. A 70-year-old patient who underwent an 8-hour colon resection is at the greatest risk for which of the following?

A. diverting colostomy

B. postoperative infection

C. myocardial infarction

D. hyperthermia

96. When a surgeon places a 2-stage venous cannula for cardiopulmonary bypass, where should the cannula be placed?

A. ascending aorta

B. right atrium

C. right ventricle

D. right superior pulmonary vein

97. A 60-year-old obese patient with a history of diabetes and renal insufficiency has undergone drainage of an abdominal abscess through a midline incision. Which of the following should the surgical first assistant consider during wound closure?

- A. Multifilament, absorbable suture material provides for optimal wound healing.
- B. A continuous suture line should be utilized.
- C. An interrupted retention suture should be utilized.
- D. Use of blunt surgical needles is a consideration in the presence of infection.

98. Which of the following are reasons for keeping the OR at a relative humidity level of between 50 - 55%?

- 1. reduced risk of infection
- 2. lower levels of patient discomfort
- 3. minimization of static electricity
- 4. depressed waste anesthesia gas

- A. 1 and 3 only
- B. 1 and 4 only
- C. 2 and 3 only
- D. 2 and 4 only

99. Tarsal – Metatarsal fracture or dislocation

- a. Jones. B. Lisfranc c. Osgood-Schlatter d. Kohler e. Pott

100. The legal argument that allows a defendant to show that the patient's condition was caused by factors other than negligence is

- A. consequential damages.
- B. technical defense.
- C. affirmative defense.
- D. denial.

Questions 1 – 5 from the Base of Heart: Posterior view plate

1. Number 12 is pointing toward

- a. left ventricle b. right ventricle c. left apex d. right artery

2. Number 15 is pointing toward

- a. left inferior pulmonary vein b. left inferior artery c. right inferior pulmonary vein d. inferior vena cava

3. Number 2 is pointing toward

- a. left pulmonary artery b. right pulmonary artery c. Left pulmonary vein d. Aorta

4. Number 5 is pointing toward
a. left atrium b. pericardial reflection c. left auricle d. right atrium

5. Number 13 is pointing toward
a. superior vena cava b. inferior vena cava c. aorta d. right pulmonary vein

Netter Heart Review: Questions 6-10 from the Base and diaphragmatic surfaces posteroinferior view plate

6. Number 2 is pointing toward
a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

7. Number 1 is pointing toward
a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

8. Number 22 is pointing toward
a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

9. Number 7 is pointing toward
a. left inferior pulmonary vein b. oblique vein c. left atrium d. coronary sinus

10. Number 6 is pointing toward
a. left inferior pulmonary vein b. oblique vein c. interventricular branch of right coronary artery d. interventricular branch of left coronary artery

Netter Thyroid gland anterior view plate: Questions 11-15

11. Number 8 is pointing toward
a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid

12. Number 38 is pointing toward
a. median cricothyroid ligament b. cricoid cartilage c. external cricoid cartilage d. thyroid cartilage

13. Number 32 is pointing toward
a. right lobe b. left lobe c. isthmus d. pretracheal lymph node

14. Number 39 is pointing toward
a. thyroid cartilage b. left lobe c. isthmus d. pretracheal lymph node

15. Number 28 is pointing toward
a. Vagus nerve b. Phrenic nerve c. left recurrent laryngeal nerve d. vagus nerve

Superior view Uterus plate

Questions 16-20

16. Line 17 is pointing toward

- a. cervix b. fundus c. rectouterine fold d. deep inguinal ring

17. Line 25 is pointing toward

- a. vesicouterine pouch b. ureteric fold c. pararectal fossa d. body of uterus

18. Line 24 is pointing toward

- a. Mesosalpinx b. bladder c. fundus of uterus d. ovary

19. Line 5 is pointing toward

- a. abdominal aorta b. median sacral vessels c. sigmoid colon d. iliac vessels

20. Line 20 is pointing toward

- a. broad ligament b. round ligament c. ovarian ligament d. rectouterine fold

Posterior View Shoulder

Questions 21-25

21. Number 11 is pointing toward

- a. Supraspinatus muscle b. Teres Minor c. Teres Major d. infraspinatus muscle

22. Number 9 is pointing toward

- a. triangle of auscultation b. Teres Minor c. Teres Major d. infraspinatus muscle

23. Number 15 is pointing toward

- a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major

24. Number 20 is pointing toward

- a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major

25. Number 17 is pointing toward

- a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major

Anterior View of the Shoulder

Questions 26-30

26. Number 1 is pointing toward

- a. deltoid b. clavicle c. pectoralis major d. acromion

27. Number 16 is pointing toward

a. omohyoid b. sternocleidomastoid c. pectoralis major d. serratus anterior

28. Number 5 is pointing toward

a. deltoid b. cephalic vein c. 6th costal cartilage d. anterior layer of rectus

29. Number 7 is pointing toward

a. biceps brachii long head b. biceps brachii short head c. pectoralis major d. serratus anterior

30. Number 10 is pointing toward

a. latissimus dorsi b. external oblique c. pectoralis major d. serratus anterior

Practice Test 4

2011 Certification review 5

For the Netter plates you will need: Knee Anterior view - Right knee in extension plate, Knee Anterior view- joint opened - knee slightly in flexion plate, Sagittal section (lateral to midline of knee) plate and right knee: posterior view plate from your CD.

1. The opening into the lesser sac is called the foramen of
 - a. Monroe b. Cline c. Winslow d. Henry

2. Two muscles that form the pelvic diaphragm are
 - a. levator ani and coccygeus b. pubococcygeus and iliococcygeus

3. The bladder is supported by the rectovesical fascia called
 - a. a. Monroe b. Cline c. Winslow d. Henry e. Denonvillier's

4. The prevesical or retropubic space of _____ is that space which is behind the pubic bone and in front of the urinary bladder.
 - a. Retzius b. Denonvillier c. Winslow d. Monroe

5. The arterial supply to the bladder is derived mainly from the
 - a. obturator b. internal pudendal c. internal iliac artery

6. Which bone of the wrist is most commonly fractured?
 - A. Distal radius
 - B. Distal ulna
 - C. Navicular
 - D. Pisiform
 - E. Lunate

7. A patient falls on the outstretched hand while walking and presents with left wrist pain. Which of the following is true concerning the injury?
 - A. Triquetrum fractures present with avascular necrosis as often as do navicular fractures.
 - B. Navicular fractures are easily diagnosed on plain radiographs.
 - C. A single view of the wrist would be adequate to evaluate this injury.
 - D. Navicular fractures are the most common carpal fractures.
 - E. Pain on the ulnar aspect of the wrist raises suspicion of a navicular fracture regardless of how the x-ray looks.

8. An 82-year-old woman presents to the emergency department after a fall in her home. She is not able to walk or bear weight on her right leg. There is marked pain in her right hip. Exam reveals some shortening of the right limb and some external rotation. What is the likely diagnosis?
 - A. Femoral shaft fracture
 - B. Femoral neck fracture
 - C. Intertrochanteric fracture
 - D. Anterior dislocation
 - E. Femoral head fracture

9. Which of the following arteries is contained within the cardinal ligament?
A. Ovarian. B. Uterine. C. Superior vesical. D. Obturator.
10. The _____ ligament supports the talar head and fills the interval between the sustentaculum tali and the tuberosity of the navicular bone.
a. spring b. talar c. navicular d. plantar
11. Urine collecting in the major calyces of the kidney will drain into the _____ before passing on into the ureter
a. minor calyces b. bladder c. renal pelvis
12. The carpal tunnel contains all of the following **EXCEPT** the:
A. flexor pollicis longus tendon. B. median nerve.
C. flexor digitorum superficialis tendons D. ulnar nerve
13. Which of the following nerves is most likely to be damaged by a midshaft fracture of the humerus?
A. Ulnar. B. Axillary. C. Radial. D. Musculocutaneous
14. What movement of the upper extremity would be most painful if there were tendinitis of the supraspinatus muscle?
A. Abduction of the shoulder. B. Internal rotation of the humerus. C. Adduction of the shoulder. D. External rotation of the humerus
15. Following an injury to the lower limb, your patient's knee is evaluated. His leg can easily be displaced anteriorly on a fixed thigh. This would indicate a torn:
A. posterior cruciate ligament. B. tibial (medial) collateral ligament.
C. fibular (lateral) collateral ligament. D. anterior cruciate ligament.
16. Trauma to the medial epicondyle of the humerus is most likely to injure the:
A. median nerve. B. ulnar nerve. C. radial nerve. D. musculocutaneous nerve
17. Which of the following is *not* a carpal bone?
A) scaphoid bone B) hamate bone C) cuboid bone D) triquetrum E) capitate bone
18. Lane's ileal membrane and Jackson's membrane would be found near the
a. cecum b. ascending colon c. descending colon d. transverse colon
19. The angle between the transverse colon and the descending colon is designated the

- a. hepatic flexure b. splenic flexure c. gastric flexure d. descending flexure
20. The _____ is the S-shaped segment of the colon that extends from the pelvic brim to the peritoneal reflection; this is the narrowest portion of the colon
- a. cecum b. ascending colon c. descending colon d. transverse colon e. sigmoid colon
21. The cecum, ascending colon, hepatic flexure, and proximal portion of the transverse colon receive arterial blood supply from the _____ artery via the ileocolic, right colic, and middle colic arteries.
- a. superior mesenteric b. inferior mesenteric c. aorta
22. The _____ artery supplies blood to the distal transverse colon, splenic flexure, descending colon, and sigmoid via the left colic artery and branches of the sigmoid and superior hemorrhoidal vessels.
- a. superior mesenteric b. inferior mesenteric c. aorta
23. The anastomosis, or linking of arcades between the superior and inferior mesenteric vessels, is known as the long anastomosis of
- a. Roe b. Riolan c. Douglas d. Retzius
24. The ovary is suspended from the posterior leaf of the broad ligament by the
- a. Mesovarium
b. parietal peritoneum
c. ovarian ligament
d. uterus
25. The ovarian artery is a branch of the
- a. pelvic artery
b. cystic artery
c. rectal artery
d. abdominal aorta
26. A scheduled procedure whose ultimate goal involves abdominal, perineal and groin dissection is a
- a. radical vulvectomy
b. Wertheim procedure
c. Manchester procedure
27. What would an anterior and posterior repair accomplish? (A) repair of cystocele and rectocele (B) repair of vesicovaginal fistula (C) repair of vesicourethral fistula (D) repair of labial hernia
28. These condensations of pelvic fascia containing considerable amounts of fibrous tissue and non-striated muscle fibres are each converted by a fold of peritoneum and pass backwards from the cervix on each side of the rectum to the front of the sacrum.

a. Round ligaments b. Uterosacral ligaments c. cardinal ligaments

29. These two narrow flat bands containing fibrous tissue and non-striated muscle run in the upper part of the broad ligaments just below and in front of the uterine tubes, passing over the vesical vessels and nerve

a. cardinal ligaments b. Uterosacral ligaments c. Round ligaments

30. The most commonly identified ovarian cyst is the A chocolate (B) follicle (C) serous cystadenoma D. dermoid

31. A herniation of the cul-de-sac of Douglas is a (A) cystocele (B) rectocele (C) hydrocele (D) enterocele

32. A vesicourethral abdominal suspension is known as a (A) LeFort (B) Wertheim (C) Marshall-Marchetti

33. A condition causing leakage of urine into the vagina is a: (A) ureterovaginal fistula (B) cystocele (C) vesicovaginal fistula (D) rectovaginal fistula

34. What is the name given to a radical vaginal hysterectomy?
(A) exenteration (B) Schauta (C) Wertheim's (D) LeFort

35. What surgical procedure provides obliteration of the vagina by denuding and approximating the anterior and posterior walls of the vagina?
(A) vaginoplasty (B) colpocleisis c. exenteration

36. Extrauterine disease of the female reproductive system may utilize any of the following lasers via a colposcope or laparoscope except:

A. CO₂ B. Nd:YAG C. Candela D. argon

37. The uterine artery is a branch of the anterior trunk of the

a. internal iliac artery b. external iliac artery c. aorta d. femoral artery

38. The _____ cranial nerve innervates the Superior oblique muscle.

a. Olfactory (I) b. Optic (II) c. Oculomotor (III) d. Trochlear (IV) e. Trigeminal V

39. The _____ cranial nerve innervates: *Sensory* to taste receptors on anterior 2/3 of tongue; *motor* to muscles of facial expression, lacrimal gland, submandibular salivary gland, sublingual salivary glands.

a. Trigeminal b. (V) Abducens c. (VI) Facial (VII)

40. The _____ cranial nerve innervates: *Sensory* from pharynx; auricle and external acoustic meatus; diaphragm; visceral organs in thoracic and

abdominopelvic cavities; *motor* to palatal and pharyngeal muscles, and visceral organs in thoracic and abdominopelvic cavities

a. Glossopharyngeal (IV) b. Vagus (X) c. Accessory (XI) d. Hypoglossal (XII)

41. The _____ cranial nerves innervates: Areas associated with the jaws
Orbital structures, nasal cavity, skin of forehead, upper eyelid, eyebrows, nose
(part) Lower eyelid; upper lip, gums, and teeth; cheek, nose (part), palate and pharynx
(part) *Sensory* to lower gums, teeth, lips; palate (part) and tongue (part); *motor* to muscles
of mastication

a. Olfactory (I) b. Optic (II) c. Oculomotor (III) d. Trochlear (IV) e. Trigeminal (V)

42. The _____ cranial nerve innervates: *Sensory* from posterior 1/3 of
tongue; pharynx and palate (part); carotid body (monitors blood pressure, pH, and levels
of respiratory gases); *motor* to pharyngeal muscles, parotid salivary gland

a. Glossopharyngeal (IV) b. Vagus (X) c. Accessory (XI) d. Hypoglossal (XII)

43. The _____ cranial nerve innervates: Inferior, medial, superior rectus,
inferior oblique, and levator palpebrae muscles; intrinsic muscles of eye

a. Olfactory (I) b. Optic (II) c. Oculomotor (III) d. Trochlear (IV)

44 The _____ cranial innervates the Lateral rectus muscle

a. Trochlear (IV) b. Trigeminal (V) c. Abducens d. (VI) Facial (VII)

45 The _____ cranial nerve innervates: Skeletal muscles of palate, pharynx
and larynx (with branches of the vagus nerve) Sternocleidomastoid and trapezius muscles

a. Glossopharyngeal (IV) b. Vagus (X) c. Accessory (XI) d. Hypoglossal (XII)

46. The _____ nerve innervates: Retina of the eye

a. Optic (II) b. Oculomotor (III) c. Trochlear (IV) d. Trigeminal (V)

47 a fragment usually on the lateral surface of the medial femoral condyle loses its blood
supply and separates from the rest of the femur. This condition is referred to as:

a. Chondromalacia b. Osteochondritis dissecans c. Bursitis

48 This condition consists of softening, yellow discoloration, fraying and degeneration of
the articular surface of the kneecap.

a. Chondromalacia b. Osteochondritis dissecans c. Bursitis

49. _____ is a tear in ligament and capsule fibers

a. separation b. sprain c. Volkmann's contracture d. atrophy

50 laceration or avulsion of extensor tendon at proximal phalanx or proximal
interphalangeal (PIP) joint.

a. Mallet finger b. Drop finger c. Boutonniere deformity

51. A patient with a Glasgow Coma Scale score of 3 has the following exam

A. Eyes open spontaneously; withdraws to pain; mumbles incomprehensibly

B. Eyes open to stimulus; follows commands in all extremities; intubated

C. Eyes closed; no response to pain; no vocalization

D. Eyes closed; extensor posturing in upper extremities; mumbles incomprehensibly

52 The most common site of origin for emboli causing ischemic stroke is the

A. Vertebral artery

- B. Common carotid bifurcation
 - C. Aortic arch
 - D. Atrium
53. A patient with a complete left homonymous hemianopsia is most likely to have a lesion in the
- A. Right frontal lobe
 - B. Right occipital lobe
 - C. Left occipital lobe
 - D. Left parietal lobe
54. The most common cause of subarachnoid hemorrhage is
- A. Head trauma
 - B. Rupture of cerebral aneurysm
 - C. Brain tumor
 - D. Arteriovenous malformation
55. The most common central nervous system tumor is
- A. Glioblastoma multiforme
 - B. Schwannoma
 - C. Meningioma
 - D. Secondary metastasis
56. The most common cause of new-onset seizures in a patient over age 50 is
- A. Acute infection
 - B. Cerebrovascular disease
 - C. Brain tumors
 - D. Congenital malformation
57. The most common cause of defective cerebral development in industrialized nations is
- A. Advanced maternal age
 - B. Fetal alcohol syndrome
 - C. Single gene defects
 - D. Intrauterine infections
58. The most common cause of bacterial meningitis in neonates is
- A. *Haemophilus influenzae*
 - B. Staphylococci
 - C. Gram-negative bacilli—bacterial meningitis
 - D. *Streptococcus pneumoniae*
59. A 35-year-old woman presents with visual field defects and complains of not having had her period for 6 mo. She also reports new onset of breast milk even though her last child was born 5 years earlier. The most likely diagnosis is
- A. Pregnancy
 - B. Ovarian cancer
 - C. Pituitary tumor
 - D. Cushing's syndrome
60. A patient presents to the emergency department after falling and hitting his head. He reports only minor headache, but is unable to open his left eye. Upon examination, the left pupil is noted to be 8 mm and nonreactive, and the right pupil is 3 mm and reactive. CT of the brain is negative. The patient has suffered an injury to cranial nerve
- A. V
 - B. VII
 - C. II

D. III

61. A man in his forties presents to the ER complaining of the "worst headache of my life" that began about 7 h earlier. The headache began acutely and has not lessened despite OTC analgesics. CT scan is negative. Lumbar puncture results demonstrate xanthochromia of the CSF. *Your diagnosis is*
- A. Subarachnoid hemorrhage
 - B. Epidural hematoma
 - C. Bacterial meningitis
 - D. Viral meningitis .
62. Which of the following is not an inhalation anesthetic agent?
[A] Enflurane [B] Fentanyl citrate [C] Nitrous oxide [D] Halothane
63. The intravenous barbiturate general anesthetic used for induction most frequently is:
[A] Thiopental sodium [B] Isoflurane [C] Diazepam [D] Ketamine
64. Cephalothin sodium (Keflin) is a/an:
[A] Antibiotic [B] Steroid [C] Diuretic D. Mydriatic
65. Indirect arterial blood pressure is obtained with a:
[A] Radial artery catheter [B] Sphygmomanometer C. Swan-Ganz catheter D. CVP line
66. Which drug counteracts metabolic acidosis?
[A] Sodium bicarbonate [B] Atropine [C] Lidocaine [D] Meperidine
67. An emergency drug used in cardiac surgery that increases myocardial contractility is:
[A] Calcium chloride [B] Droperidol (Inapsine) [C] Isoproterenol hydrochloride (Isuprel) [D] Furosemide (Lasix)
68. A drug used to reverse hypotension is:
[A] Dantrolene B. Propranolol hydrochloride (Inderal)
[C] Procainamide hydrochloride (Pronestyl)
[D] Levarterenol (Levophed)
69. Meperidine hydrochloride (Demerol") is a/an:
[A] Analgesic [B] Bronchial dilator [C] Vasoconstrictor [D] Sedative
70. A radiopaque contrast medium used in surgery is:
[A] Methylene blue [B] Renografin [C] Indigo carmine [D] Gentian violet
71. The trade name for epinephrine is:
[A] Protamine sulfate [B] Atropine [C] Adrenalin [D] Procaine
- 72: Cardiac arrhythmias of ventricular origin can be treated with:
[A] Digoxin [B] Prostigmin [C] Lidocaine [D] Furosemide
73. Dextran is used parenterally to:
[A] Expand blood plasma volume [B] Nourish vital tissue [C] Carry oxygen in circulation [D] Increase blood viscosity

- 74.. A barbiturate that may be used for sleep the night before surgery is:
[A. Diazepam [B] Meperidine [C] Secobarbital [D] Scopolamine
75. Steroids are used for reduction of:
[A] Fluid in the body [B] Body's need for oxygen [C] Tissue inflammation and swelling
[D] Uterine contraction
76. The most widely used local anesthetic is:
[A] Cocaine [B] Lidocaine (Xylocaine) [C] Procaine hydrochloride
[D] Bupivacaine hydrochloride (Marcaine)
77. A rapid-onset muscle relaxant used for intubation in short cases is:
[A] Succinylcholine chloride (Anectine) [B] Atracurium besylate
[C] Pancuronium bromide (Pavulon) [D] Vecuronium bromide
78. During a Nissen fundoplication, care should be taken when placing medial traction on the stomach to prevent avulsion of the
- A. splenic artery.
 - B. gastric arteries.
 - C. common duct.
 - D. pancreatic duct.
79. During a routine shoulder arthroscopy on a patient with instability, a surgeon notices that the patient has a type II SLAP lesion. Which of the following is the appropriate treatment for this finding?
- A. Resect the tissue.
 - B. Repair the glenoid labrum.
 - C. No treatment is necessary.
 - D. Perform a biceps tenolysis.
80. Which of the following is the desired effect of atropine when used as a preoperative medication?
- A. drowsiness
 - B. pain relief
 - C. decreased anxiety
 - D. drying of secretions
81. In which of the following phases of wound healing do epithelial cells migrate, proliferate, and cover the surface to close a defect?
- A. inflammatory
 - B. fibroplastic

- C. remodeling
- D. clot formation

82. Sutures are usually removed within the fifth to sixth day postoperatively. Sutures should be left in longer in which of the following situations?

- 1. incision is closed under tension
- 2. incision is in the hand
- 3. patients is diabetic
- 4. suture tracts show signs of infection

- A. 1, 2, and 3 only
- B. 1, 2, and 4 only
- C. 1, 3, and 4 only
- D. 2, 3, and 4 only

83. Which of the following methods of routine sterilization is considered optimal for processing nonporous stainless steel instruments?

- A. steam cycle at 250°F (121°C) for 3 minutes
- B. steam cycle at 250°F (121°C) for 10 minutes
- C. steam cycle at 270°F (132°C) for 3 minutes
- D. steam cycle at 270°F (132°C) for 10 minutes

84. After a common bile duct exploration, which of the following is used to drain bile?

- A. T-tube
- B. Penrose
- C. Hemovac
- D. Blake

85. To determine the effectiveness of a prevacuum sterilizer, the surgical first assistant should use

- A. a biological indicator.
- B. external indicator tape.
- C. cycle parameter tape.
- D. a Bowie-Dick pack.

86. An allergy to fish necessitates caution when administering which of the following drugs?

- A. papaverine
- B. heparin sodium (Coumadin®)
- C. dexamethasone sodium phosphate
- D. protamine sulfate

87. Prior to the insertion of a chest tube, which of the following should be placed at the chest tube incision site?

- A. drain sponge
- B. Vaseline gauze
- C. mattress suture
- D. intercostal suture

88. A retrograde carotid stump pressure of 10 ml/100 g during a carotid endarterectomy would necessitate using a

- A. PTFE graft.
- B. Sundt shunt.
- C. vein patch.
- D. Debakey clamp.

89. Protrusion of abdominal contents through a surgical wound is

- A. a rupture.
- B. dehiscence.

- C. disruption.
- D. evisceration.

90. The ideal core temperature range for the postoperative patient is

- A. 90°F (32°C) to 93°F (34°C).
- B. 97°F (36°C) to 100°F (38°C).
- C. 104°F (40°C) to 108°F (42°C).
- D. 111°F (44°C) to 115°F (46°C).

91. During arterial embolectomy, which of the following catheters is used for clot removal?

- A. Swan-Ganz
- B. Groshong
- C. Fogarty
- D. Broviac

92. Which of the following arteries may be ligated during an abdominal aortic aneurysm (AAA) resection?

- A. renal
- B. mesenteric
- C. celiac
- D. gastric

93. If a Kelly clamp is left in a patient who underwent a cholecystectomy, which of the following legal charges can be filed?

- A. Primum Non Nocere
- B. res ipsa loquitur
- C. foreseeability
- D. intentional tort

94. Which of the following tendon autografts is MOST typically utilized when performing anterior cruciate ligament (ACL) reconstruction?

- A. quadriceps
- B. semi-tendinosis
- C. patellar
- D. biceps femoris

95. Which of the following nerves on the lateral aspect must be cared for when placing a patient in lithotomy stirrups?

- A. obturator
- B. peroneal
- C. femoral
- D. pudendal

Questions 1-5 from plate Knee Anterior view; Right knee in extension

1. Number 3 is pointing toward

- a. vastus lateralis muscle b. vastus medialis muscle c. vastus intermedius muscle
- d. Iliotibial tract

2. Number 24 is pointing toward

- a. vastus lateralis muscle b. vastus medialis muscle c. vastus intermedius muscle
- d. medial patellar retinaculum

3. Number 2 is pointing toward

- a. articularis genus muscle b. vastus medialis muscle c. vastus intermedius muscle
- d. Iliotibial tract

4. Number 21 is pointing toward

- a. gracilis b. sartorius c. tibial collateral d. semitendinosus

5. Number 13 is pointing toward

- a. tibialis anterior b. extensor longus c. tibial collateral d. semitendinosus

Questions 6-10 Knee Anterior view; joint opened, knee slightly in flexion plate

6. Number 8 is pointing toward

- a. vastus medialis b. vastus lateralis c. articularis genus d. Rectus

7. Number 4 is pointing toward

- a. cruciate ligaments b. medial meniscus c. lateral meniscus d. infrapatellar synovial fold

8. Number 13 is pointing toward

- a. cruciate ligaments b. medial meniscus c. lateral meniscus d. infrapatellar synovial fold

9. Number 20 is pointing toward
a. suprapatellar bursa b. patella c. tibia d. femur

10. Number 17 is pointing toward
a. suprapatellar bursa b. synovial membrane c. Articularis muscle d. infrapatellar fat pad

Questions 11-15 from Sagittal section (lateral to midline of knee) plate

11. Number 11 is pointing toward
a. suprapatellar bursa b. synovial membrane c. Articularis muscle d. infrapatellar synovial fold

12. Number 10 is pointing toward
a. suprapatellar bursa b. synovial membrane c. patellar ligament d. infrapatellar fat pad

13. Number 19 is pointing toward
a. femur b. tibia c. fibula d. Quadriceps femoris tendon

14. Number 3 is pointing toward
a. knee joint b. tibia tuberosity c. fibula bursa d. articular cartilages

15. Number 8 is pointing toward
a. suprapatellar bursa b. deep infrapatellar bursa c. subcutaneous infrapatellar bursa
d. infrapatellar synovial fold

Questions 16-20 from right knee: posterior view plate

16. Number 18 is pointing toward
a. fibular collateral ligament b. popliteal ligament c. tibial collateral ligament d. biceps femoris

17. Number 4 is pointing toward
a. interosseous membrane b. oblique popliteal ligament c. adductor magnus d. biceps femoris

18. Number 1 is pointing toward
a. interosseous membrane b. popliteal ligament c. adductor magnus d. biceps femoris

19. Number 21 is pointing toward
a. popliteus muscle b. plantaris muscle c. lateral head gastrocnemius muscle d. medial head gastrocnemius muscle

20. Number 16 is pointing toward
a. popliteal ligament b. biceps femoris tendon c. adductor magnus tendon d. femur

Practice Test 5

2011 certification review 6

1. The greater part of the breast, about two thirds, rests on the pectoralis major muscle; and the rest, about one third, on the _____.
a. pectoralis minor b. teres minor c. serratus anterior d. external oblique
2. The _____ is a prolongation of breast tissue from the upper outer part of the breast, which passes through an opening in the axillary fascia, called the foramen of Langer.
a. Axillary tail of Spence b. coopers ligament c. axillary fascia d. sebaceous gland
3. The Mammary gland is fixed to the overlying skin and the underlying pectoral fascia by fibrous bands known as
a. lobules b. acini c. Cooper's ligaments
4. Blood is supplied to the breast from _____ arterial sources
a. the anterior perforating branches of the internal mammary, branches of axillary artery and the lateral thoracic arteries b. axillary artery and the internal mammary c. branches of the aorta
5. _____ is the loose areolar tissue separating the breast from the pectoralis major muscle
a. subcutaneous tissue b. Retromammary space c. Coopers ligament
6. _____ nodes are located between the pectoralis major and minor muscles
a. axillary b. inguinal c, Rotter's d. thoracic
7. _____ nerve Arises from three roots: 5th, 6th, and 7th cervical nerves. Runs along the anterior-lateral chest wall and innervates the serratus anterior muscle Injury causes a "winged scapula."
a. Long thoracic b. thoracic c. Thoracodorsal
8. _____ nerve (lateral axilla) Arises from the posterior cord of the brachial plexus Runs along the medial surface of the latissimus dorsi muscle, which it innervates.
a. Long Thoracic b. Thoracodorsal c. median d. thoracic
9. what are clusters of milk forming glands, or acini, together with their ductules called
a. ducts b. lobules c. lactiferous d. coopers
10. In what age range is breast cancer the leading cause of death in women
a. 40-55 b. 30-40 c. 50-65
11. What is the most common distant site to which breast cancer metastasizes
a. liver b. bone c. lung d. bladder

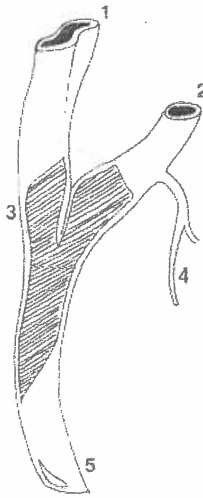
110. What lies in the inguinal canal in the female instead of the VAS
a. ovary/fallopian tube b. small intestine c. gubernaculum d. round ligament

111. What attaches the testicle to the scrotum
a. ovary/fallopian tube b. small intestine c. gubernaculum d. round ligament

112. What percentage of patients with a femoral hernias are women
a. 25 b. 40 c. 30 d. 85

113.

Identify the following structures:



Word list:

External carotid artery, Internal carotid artery, Superior thyroid artery, Carotid "bulb", Common carotid artery, common site of plaque formation

114. What is the Gold STANDARD for evaluating Carotid disease

a. A-gram b. CBC c. physical exam d. Family History

115. Which nerve crosses approximately 1cm distal to the carotid bifurcation

a. hypoglossal b. facial c. vagus d. brachial

116. Which nerve crosses the internal carotid near the ear

a. hypoglossal b. facial c. vagus d. brachial

117. What is the diagnostic study of choice for evaluation of biliary tract/gallbladder cholelithiasis

a. A-gram b. ultrasound c. CBC d. Standard X-Ray

118. What nerve is located on top of the spermatic cord.

a. hypoglossal b. facial c. ilioinguinal d. epigastric

119. The left testicular vein drains into the

a. IVC B. Left Renal vein. c. Mesentery d. SVC

120. The right testicular vein drains into the

a. IVC B. Left Renal vein. c. Mesentery d. SVC

121. Which of the following wound dressings absorbs exudate from the wound?

- A. Xeroform**
- B. gauze**
- C. Tegaderm**
- D. collodion**

122. During chest tube placement, it is most important to place the tube in the inferior aspect of the intercostal space to avoid

- A. neurovascular injury.**
- B. pneumothorax.**
- C. lung injury.**
- D. rib fracture.**

123. In the application of arch bars, which of the following would the surgeon MOST likely use between the teeth and around the bar?

- A. 0-1 Dexon**
- B. 5-0 to 6-0 Vicryl**
- C. 25- or 28-gauge stainless steel wire**
- D. 34- or 36-gauge stainless steel wire**

124. Which of the following suturing techniques is used for aortic and atrial cannulation for cardiopulmonary bypass?

- A. Heaney**
- B. purse string**
- C. mattress**
- D. Grey-Turner**

125. When transferring a thoracotomy patient to recovery, the chest drainage system should be

- A. disconnected.**
- B. placed at the patient's side.**
- C. positioned above the patient's head.**
- D. maintained below the patient's chest level.**

126. The active chemical used for sterilization in a Steris unit is

- A. glutaraldehyde.**
- B. peracetic acid.**
- C. hydrogen peroxide.**
- D. cobalt 60.**

127. Which of the following studies is typically used to determine Zenker's diverticulum?

- A. computerized axial tomography (CAT)**
- B. barium swallow**
- C. positron emission tomography (PET)**
- D. carotid angiogram**

128. The primary purpose of a robotic device designed to hold and maneuver a laparoscope is to

- A. eliminate tremor associated with operating an endoscope.**
- B. replace the surgeon.**
- C. decrease set-up time for an endoscope.**
- D. reduce the incidence of fogging.**

129. During an abdominal hysterectomy, the surgeon initially isolates the uterus by separating it from the

- A. urinary bladder.**
- B. adnexa.**
- C. broad ligaments.**
- D. cervix.**

130. A 47-year-old female is recovering nicely from a laparoscopic Roux-en-Y gastric bypass procedure. On her first day at home following discharge from the hospital, she develops sudden-onset anterior chest pain and shortness of breath, and begins sweating profusely. Upon returning to the hospital emergency room, her ECG shows tachycardia and her chest x-ray appears normal. Which of the following is the MOST likely reason for her symptoms?

- A. acute respiratory distress syndrome (ARDS)**
- B. acute myocardial infarction**
- C. pulmonary embolism**
- D. nosocomial pneumonia**

131. An 18-year-old patient undergoing general anesthesia for a laparoscopic cholecystectomy is experiencing the following:

- hypercarbia**
- tachypnea**
- tachycardia**
- hypoxia**
- metabolic acidosis**
- respiratory acidosis**
- cardiac dysrhythmias**
- elevation of body temperature**

of the following conditions is MOST likely?

- A. cardiac arrest**
- B. malignant hyperthermia**
- C. respiratory arrest**
- D. depolarizing muscle blocking**

Whi

12. Pathologic enlargement of the male breast is called
(A) subcutaneous adenoma (B) gynecomastia (C) hypoplasia (D) cystic mastitis
13. Sutures placed in a wound to prevent wound evisceration are called (A) stent
(B) fixation (C) retention (D) traction
14. Surgical enlargement of the passage between the prepylorus of the stomach and the duodenum is a
(A) pyloromyotomy (B) pyloroplasty (C) Billroth I (D) Billroth II
15. A Whipple operation is surgically termed a
(A) pancreatectomy (B) pancreatoduodenectomy (C) pancreatic cyst marsupialization
(D) transduodenal sphincterotomy
16. A left subcostal incision indicates: surgery of the
(A) gallbladder (B) pancreas (C) spleen (D) common bile duct
17. A lower oblique incision is a
(A) Pfannenstiel (B) inguinal (C) paramedian (D) midabdominal
18. The curved transverse incision used for pelvic surgery is
(A) midabdominal transverse (B) Poupart (C) Pfannenstiel (D) McVey
19. Which breast procedure removes the entire breast and axillary contents but preserves the pectoral muscles?
(A) lumpectomy (B) wedge resection (C) modified radical mastectomy
(D) radical mastectomy
20. The breast procedure performed to remove extensive benign disease is a(n)
(A) axillary node dissection (B) simple mastectomy (C) radical mastectomy
(D) modified radical mastectomy
21. What incision is indicated for an esophagogastrrectomy? .
(A) left paramedian (B) upper vertical midline (C) thoracoabdominal
(D) full midabdominal
22. In which incision could retention sutures be used?
(A) vertical midline (B) McBurney (C) transverse (D) thoracoabdominal
23. In cataract surgery, a viscous jelly sometimes used to occupy space is
(A) Alpha Chymartrypsin (B) mannitol (C) Healon (D) Wydase

24. A miotic drug is (A) pilocarpine (B) homatropine (C) atropine (D) scopolamine
25. What topical anesthetic is used most frequently for preoperative ocular-instillation?
(A) lidocaine (B) tetracaine (C) cocaine (D) Dorsacaine
26. The drug added to a local ophthalmic anesthetic to increase diffusion is
(A) alpha-chymotrypsin (B) hyaluronidase (C) epinephrine
(D) Varidase
27. A solution used for eye irrigation is ..(A) phenylephrine HCl .
(B) normal saline (C) alpha-chymar (D) balanced salt solution
28. A synthetic local anesthetic that is effective on the mucous membrane and is used as
a
.surface agent in ophthalmology is
(A) Miocol (B) Zolyse (C) Dibucaine (D) tetracaine
29. Dilating eye drops are called
(A) mydriatics (B) miotics (C) myopics (D) oxytotics
- 30 Which of the following uses ultrasonic energy to fragment the lens in extracapsular
cataract extraction?
(A) keratome (B) ocutome (C) cystotome (D) phacoemulsifier
31. A chalazion is a chronic inflammation of the (A) lacrimal gland
(B) meibomian gland (C) eyelid (D) conjunctiva
32. What procedure is done for chronic dacrocystitis?
(A) extirpation (B) lacrimal duct probing (C) myectomy
(D) dacrocystorhinostomy
33. A procedure to treat retinal detachment is (A) scleral buckling
(B) trabeculectomy (C) goniotomy (D) vitrectomy
34. Sagging and eversion of the lower lid is
(A) entropion (B) blepharitis (C) ectropion (D) ptosis
35. Removal of the entire eyeball is
(A) keratoplasty (B) exenteration (C) enucleation (D) evisceration
36. What movement of the upper extremity would be most painful if there were tendinitis of
the supraspinatus muscle?
A. Abduction of the shoulder.
B. Internal rotation of the humerus.

- C. Adduction of the shoulder.
- D. External rotation of the humerus.

37. Which one of the following statements about the heart is INCORRECT ?

- A. Aortic valve sounds can best be heard over the right second intercostal space.
- B. Most cardiac veins drain into the coronary sinus.
- C. Blood passes through the bicuspid (mitral) valve when it flows from the right atrium into the right ventricle.
- D. The fossa ovale is the site of the former, embryonic shunt from the right atrium to the left atrium

38. the criminal nerve of Grassi is associated with the

- a. stomach b. liver c. heart d. bladder

39. The veins of Sappey drain the

- a. spleen b. bladder c. diaphragm d. lumbar vertebrae

40. Sappey's line is associated with _____ drainage.

- a. arterial blood b. venous blood c. lymph

41. the node of Lund is located in the

- a. triangle of Calot b. inguinal canal c. patella bursa

42. Where is Hartmann's pouch located

- a. gallbladder infundibulum b. liver bed c. stomach d. apex of the gallbladder

43. What are the small ducts that drain bile directly into the gallbladder called?

- A. copper's b. Hartmann's c. Luschka

44. What is the main pancreatic duct called

- a. Luschka b. Wirsung c. dorsal pancreatic d. Santorini

45. What is another name for the small pancreatic duct?

- a. Wirsung b. Santorini c. Luschka d. Calot's

46 What three structures comprise the triangle of Calot

- a. cystic artery, right hepatic duct, common bile duct
- b. cystic duct, common hepatic, lower edge of the liver
- c. cystic duct, common hepatic duct, aorta

47. Below the _____ line, all three abdominal wall muscle fascias form the anterior rectus sheath fascia. Above the line, the transversus and half of the internal oblique fascia form a posterior rectus sheath fascia.

- a. arcuate b. galen c. fascia

48. The colon has taenia coli, haustra, and appendices epiploicae (fat appendages), whereas the small intestine is _____.

a. rough b. semi-circular c. smooth

49. The _____ line is located between the external and internal anal sphincters.

a. Treves b. Jackson's c. Hilton

50. The avascular area in the mesentery to the left of the middle colic artery is called

a. space of Riolan b. area of Galen c. space of Jackson

51. Clostridium perfringens is associated with which clinical condition?

- A. Gas gangrene
- B. Toxic shock syndrome
- C. Botulism
- D. Anthrax

52. Which of the following is the causative agent for Rocky Mountain spotted fever?

- A. Rickettsia rickettsii
- B. Dermacentor andersoni
- C. Dermacentor variabilis
- D. Rickettsia akari

53. In the prone position, the thorax must be elevated from the OR table to prevent

- (A) compromised respiration
- (B) pressure areas
- (C) circulatory impairment
- (D) brachial nerve damage

54. Extreme positions of the head and arm can cause injury to the

- (A) cervical plexus
- (B) radial nerve
- (C) ulnar nerve
- (D) brachial plexus

55. The position for most open bladder surgery would be

- (A) lithotomy
- (B) supine, bolster under pelvis
- (C) reverse Trendelenburg
- (D) Fowler's, modified

56. In which circumstance could the patient sustain injury to the pudendal nerves?
- (A) positioned on the fracture table
 - (B) positioned in lateral chest
 - (C) positioned in lithotomy
 - (D) positioned on the urological table

57. Which factor is important to consider when positioning the aging patient?
- (A) skeletal changes
 - (B) limited range of motion of joints
 - (C) tissue fragility
 - (D) all of the above

58. Normal Adult Male Range for RBC is

- a. 4.2 - 5.6 mill/mcl
- b. 3.2 - 6 mill/mcl
- c. 2.2 - 6.1 mill/mcl

59. Normal Adult Male Hematocrit Range is

- a. 30-45%
- b. 40 - 54%
- c. 40 -62%

60. The Normal Adult W.B.C. Range is

- a. 3.8 - 10.8 thous/mcl
- b. 4.5 - 8.2 thous/mcl
- c. 6.4- 11.5 thous/mcl

61. Normal Adult Range for Sodium

- a. 120-155 mEq/L
- b. 135-146 mEq/L
- c. 110 - 160 mEq/L

62. Normal Range for potassium

- a. 3.5 - 5.5 mEq/L
- b. 3.0 -7.2 mEq/L
- c. 5.5 - 8.2 mEq/L

63. The P wave displays _____ and the PR segment is caused by the delay in the AV node

- a. atrial depolarization
- b. electrical activity
- c. repolarization

64. The common knot used in surgery is the square knot. The square knot consists of two
- identical half hitches
 - mirror-image half hitches
 - reverse half hitches
65. A surgeon's knot is one with a _____ half hitch for the first throw
- single
 - reverse
 - double
66. A simple suture should have a square profile to avoid _____ skin edges
- inverting
 - extending
 - rounding
 - squaring
67. The _____ stitch incorporates the seromuscular layer and submucosa (the strong collagen-containing layer).
- Lembert
 - Connell
 - Halsted
 - Cushing
68. The medium of the laser is contained in the
- arm
 - power unit
 - resonating chamber
69. The CO₂ laser beam can damage _____ and cause immediate pain
- retina
 - cornea
 - neither
70. _____ form of light measured in wavelengths "distance between two wave peaks"
- bovie
 - laser
71. _____ determines color and is measured in nanometers.
- watts
 - voltage
 - Wavelength
72. _____ laser has a blue green light, highly absorbed by hemoglobin and delivered through a fiber system
- CO₂
 - YAG
 - Argon
73. _____ laser is in the infrared region on the spectrum, needs a neon helium aiming beam, delivered through an articulated arm using reflecting mirrors
- Argon
 - CO₂
 - ND-YAG
74. The laser is passed through a KTP crystal to produce an intense green laser light
- Nd doubled YAG
 - CO₂
 - Argon
75. _____ acronym for Light Amplification by the stimulated emission of radiation
- bovie
 - laser
 - photon
76. _____ measures the pressure of Carbon dioxide in arterial blood, shows how well the lungs are getting rid of carbon dioxide. normal reading 35-45 mmhg
- PH
 - PACO₂
 - PAO₂
77. measures the amount of bicarbonate in arterial blood. Normal reading 22-26mEq/L
- HCO₃
 - PACO₂
 - PAO₂
78. Which fire extinguisher is used for a laser fire
- A
 - Halon
 - A or B
79. Pneumo-peritoneum CO₂ gas, pressure is kept between
- 10-17
 - 18 -25
 - 14-16

80. Improperly applied plaster or subsequent swelling produces pressure of the cast against underlying soft tissues could cause
- pain
 - improper healing
 - Volkman's ischemic paralysis
 - all the above
81. During Hemostasis Prothrombin and thromboplastin, along with calcium ions in the blood, form
- fibrinogen
 - thrombin
 - fibrinogen
82. The three protective tissue layers called the meninges lie in the following order starting with the most superficial:
- arachnoid, dura mater, pia mater
 - dura mater, pia mater, arachnoid
 - dura mater, arachnoid, pia mater
83. These tumors account for 50% of all primary brain tumors
- astrocytomas
 - schwannomas
 - pituitary adenomas
 - bone tumors
84. Fissure of Sylvius separates the
- frontal and temporal lobe
 - parietal and occipital lobe
 - occipital and temporal lobe
 - temporal and olfactory area
85. The great sensory nerve of the face and head is the
- trochlear
 - oculomotor
 - hypoglossal
 - trigeminal
86. Name the eighth cranial nerve
- trochlear
 - vestibulocochlear
 - vagus
 - accessory
87. The ophthalmic artery divides into the
- supraorbital and supratrochlear
 - internal and external carotid
 - medial and lateral ophthalmic
88. Which cranial nerve emerges from the medulla, passes through the skull, and descends through the neck region into the thorax and abdominal region?
- IX
 - X
 - XI
 - XII
89. Which cranial nerve carries impulses for sense of smell?
- I
 - II
 - III

- d. IV
90. It is usually caused by an injury to the middle meningeal artery
- epidural hematoma.
 - intracerebral hematoma.
 - subdural hematoma.
 - cerebral aneurysm
91. The common carotid reaches the upper border of the thyroid cartilage, where it forms a dilation known as the
- carotid sinus
 - carotid body
 - carotid bulb
 - external carotid
92. The carotid body and carotid sinus are two sensory structures; the carotid body is a chemoreceptor and the carotid sinus is a
- presoreceptor
 - chemoreceptor also
93. Meningiomas are benign tumors that originate in the
- mid brain
 - dura
 - pituitary gland
 - spinal cord
94. Which blood component is the most common source of bacterial infection in a transfusion
- WBC's
 - RBC's
 - platelets
95. The dissection of the lateral peritoneal attachments of the duodenum to allow inspection of the duodenum, pancreas and other retroperitoneal structures is called a _____ maneuver.
- Pringle
 - Kocher
 - Cattel
96. Mobilization of the descending colon to the midline. This maneuver will expose the abdominal aorta
- Pringle
 - Kocher
 - Cattel
 - Mattox
97. What is the arterial blood supply to the left colon
- inferior mesenteric, middle colic, left colic
 - superior mesenteric, ileocolic, right colic and middle colic
98. _____ series of arcades along the mesenteric border throughout the length of the colon
- Arc of Riolan
 - Marginal artery of Drummond
 - colic artery
99. Short artery from the root of the superior mesenteric artery to the root of the inferior mesenteric artery or one of its branches
- Arc of Riolan
 - artery of Drummond
 - colic artery
100. A skin graft from the same species
- allograft
 - homograft
 - xenograft
 - autograft

101. The most common artery used to feel the pulse is the

- (A) dorsalis pedis artery
- (B) femoral artery
- (C) radial artery
- (D) carotid artery

102. The body temperature taken orally is 98.6°F. What is it in Celsius?

- (E) 37°C
- (F) 52°C
- (G) 110°C
- (H) 212°C

103. Which term indicates low or decreased blood volume?

- (I) anoxemia
- (J) hypovolemia
- (K) hypoxia
- (L) hypocapnia

104. If the surgeon wants to assess the patient's ability to void voluntarily via the urethra, yet sees the need for urinary drainage, he could use a

- (M) Bonanno suprapubic catheter
- (N) Foley catheter
- (O) Urethral stent
- (P) Perineal urethrostomy

105. When catheterizing a patient

- (Q) the patient must be shaved
- (R) the tip of the catheter must be kept sterile
- (S) sterile technique is not necessary
- (T) the bag must be maintained above table level

106. In which burn classification are the skin and subcutaneous tissue destroyed?

- (U) first
- (V) second
- (W) third
- (X) fourth

107. Uncontrolled increased positive pressure in one side of the thorax causes collapse of the opposite side, which is called

A. flail chest B. Cheyne-Stokes syndrome C. emphysema D. mediastinal shift

108. What is the most common organ in an inguinal hernia sac in women
a. ovary/fallopian tube b. small intestine c. gubernaculum d. round ligament

109. What is the most common organ in an inguinal hernia sac in men
a. ovary/fallopian tube b. small intestine c. gubernaculum d. round ligament

Practice Test 6

2011 certification review 7

1. Polyglycolic acid sutures are

- (A) absorbed by an enzyme action . (B) absorbed by the process of hydrolysis .
- (C) nonabsorbable (D) encapsulated by body tissue

2. A patient is having elective surgery the nurse notes that her white cell count is 14,000 cu mm. This would indicate that

- (A) there may be an inflammation or infection present
- (B) the count is within normal range
- (C) the count is below normal
- (D) there may be an anemic condition present and surgery should be canceled

3. Meckel's diverticulum is found in the

- (A) esophagus (B) sigmoid colon (C) ileum (D) duodenum

4. A retention suture passes through all of the following EXCEPT

- (A) mesentery tissue (B) rectus muscle
- (C) fascial tissue (D) subcutaneous tissue

5. A hernia that passes through the inguinal ring into the inguinal canal is termed

- (A) direct (B) indirect (C) pantaloon (D) sliding

6. Dead space is the space

- (A) that has no blood supply
- (B) caused by separation of wound edges that have not been closely approximated
- (C) where the tissue has been approximated with sutures
- (D) where the suture line has broken down

7. Funnel chest is also known as

- (A) pectus carinatum (B) pectus excavatum (C) atresia (D) Ramstedt-Fredet

8. Which term denotes low or decreased blood volume?

- (A) anoxia (B) hypovolemia (C) hypoxia (D) hypocapnia

9. Injection of contrast media into the brachial, carotid, or vertebral artery to study the in- tracraniel vessels is called

- (A) myelography (B) pneumoencephalography
- (C) computed axial tomography (CAT) scan (D) angiography

10. Radical surgery done for lower sigmoid or rectal malignancy is a(n)
(A) Wertheim's procedure (B) abdominal-perineal resection
(C) Whipple procedure (D) pelvic exenteration
11. An anti-inflammatory drug whose effect is useful in reversing early rejection of organ transplants is
(A) Cyclosporine (B) Polyclonal
(C) Prednisone (D) Orthoclone
12. A procedure performed to treat myasthenia gravis is a
(A) adrenalectomy (B) splenectomy (C) thymectomy (D) parathyroidectomy
13. . The purpose of lidocaine installation during a tracheotomy is to
(A) extend anesthesia (B) decrease coughing (C) decrease gag reflex (D) reduce edema
14. A procedure that is done to give the bowel a rest when there is advanced inflammation is
(A) abdominoperineal resection (APR) (B) right hemicolectomy
(C) anterior sigmoid resection (D) temporary colostomy
15. The position frequently utilized in thyroid and gallbladder surgery is
(A) supine (B) Trendelenburg (C) reverse Trendelenburg (D) dorsal recumbent
16. Which position would be chosen for a pneumonectomy?
(A) supine (B) dorsal (C) lateral (D) Kraske
17. How are the legs placed in the lateral position?
(A) both legs are straight (B) both legs are flexed
(C) the lower leg is flexed with the upper leg straight (D) the lower leg is straight with the upper leg flexed
18. When assisting with a cast application one must
(A) handle case with flat open hands
(B) hold plaster bandage under water horizontally to allow air bubble to escape
(C) provide water in bucket at body temperature
(D) place all rolls to be used in water and remove as surgeon requests each

19. The most common postoperative complication of orthopedic surgery is
(A) nonunion (B) osteomyelitis (C) thromboembolism
(D) urinary tract infection
20. Which nerve is affected by pressure on the lower leg or knee?
(A) phrenic (B) pudendal
(C) perineal (D) peroneal
21. A physiologic salt solution used intravenously when the body needs additional sodium, calcium, and potassium is
(A) Dextran (B) normal saline (C) dextrose in saline (D) Ringer's lactate
22. In the lateral chest position, a sandbag or padding is placed under the chest at axillary level to
(A) facilitate respiration (B) aid in position stability
(C) prevent pressure on the lower arm (D) create good body alignment
23. A viscous jelly used to occupy space, thus preventing damage, in anterior segment surgery of the eye is
(A) Healon (B) Chymar (C) Miocol (D) Wydase
24. An elevated PSA test could be indicative of cancer of the
(A) lung (B) prostate (C) lymph nodes (D) cervix
25. In which intention of healing is there a wide, fibrous scar?
(A) primary (B) secondary (C) third (D) fourth
26. Which gram-positive bacteria can cause abscesses?
(A) *Escherichia coli* (B) *Salmonella* (C) *Proteus* (D) *Staphylococcus aureus*
27. An osmotic diuretic agent used in neuro- surgery to reduce cerebral edema is
(A) Lasix (B) mannitol (C) Diamol (D) ammonium chloride
28. When the foreskin of the penis cannot be retracted over the glans it is called
(A) hypospadias (B) ptosis (C) phimosis (D) balanitis

29. The burn characterized by blister formation, pain, and a moist and mottled red appearance is
(A) first degree (B) second degree (C) third degree (D) fourth degree
30. Microorganisms that grow in the absence of oxygen are
(A) spores (B) aerobes (C) facultative bacteria (D) anaerobes
31. Sperm are produced and stored in the
(A) testes, vas deferens (B) prostate gland, testes (C) Cowper's gland, vas deferens (D) vas deferens, testes
32. The part of the eye that receives images and transmits them to the brain is the
(A) retina (B) lens (C) choroid (D) cornea
33. Which nasal sinus can be approached only through an external eyebrow incision?
(A) sphenoid (B) ethmoid (C) frontal (D) maxillary
34. Which sinus is surgically opened in a Caldwell-Luc procedure?
(A) ethmoid (B) frontal (C) maxillary (D) sphenoid
35. Each of the following relate to shock EXCEPT
(A) hypertension (B) clammy, cool skin
(C) weak, rapid pulse (D) sweating
36. . An infected wound left open to heal on its own without sutures heals by which intention?
(A) first (B) second (C) third (D) fourth
- 37.. The malleus, incus, and stapes are located in the
(A) middle ear (B) outer ear (C) inner ear (D) external ear
38. . After hip joint surgery, immobilization is aided by the use of
(A) an abduction pillow (B) a Thomas splint (C) a cast (D) traction
39. . The blue-green wavelength produced by a laser capable of treating retinal detachment, diabetic retinopathy, and macular neovascular lesion is
(A) krypton (B) Ho:YAG (C) argon (D) Nd:YAG

40. . The first part of the small intestine is known as the
(A) jejunum (B) pylorus (C) duodenum (D) ileum
41. . What organisms are likely to be found in a surgical wound adjacent to colostomy?
(A) *Staphylococcus* (B) *Streptococcus* (C) *Pseudomonas* (D) *Escherichia coli*
42. During a CPR effort, which drug is given to combat metabolic acidosis?
(A) Xylocaine (B) sodium bicarbonate (C) Nipride (D) Inderal
43. The proper setting for a tourniquet applied to the thigh is
(A) 100 to 200 mmHg (B) 250 to 300 mm Hg (C) 350 to 400 mm Hg (D) 400 to 500 mm Hg
44. When doing an abdominal prep/the umbilicus is
(A) done first (B) done last or separately (C) given no special consideration
(D) avoided because it is contaminated
45. The portion of the stomach located at the approach to the small intestine is the
(A) cardia (B) fundus (C) pylorus (D) antrum
46. What is the action of Lasix?
(A) anti-inflammatory (B) diuretic
(C) central nervous system (CNS) depressant (D) contrast media
- 47.. The normal bladder capacity is
(A) 100 to 200 mL (B) 200 to 300 mL
(C) 700 to 800 mL (D) 800 to 1000 mL
48. A legal wrong committed by one person involving injury to another person is called
(A) tort (B) default (C) liability (D) impressment
49. Scoliosis is surgically treated by the implantation of
(A) Steinmann pins (B) Rusch rods (C) Lottes nails (D) Harrington rods
50. An intravenous agent used for anesthesia induction is
(A) lidocaine (B) Fluothane (C) Pentothal sodium (D) Demerol

51. A prosthetic implant which requires nonadherence to tissue for the sake of creating normal flexion and extension is
(A) biofixation (B) methylmethacrylate fixation (C) constrained (D) nonconstrained
52. Unauthorized discussion of a patient's surgery outside of the OR constitutes a lawsuit for
(A) defamation (B) negligence (C) assault and battery (D) invasion of privacy
53. A chronic granulomatous inflammation of a meibomian gland in the eyelid is a
(A) entropion (B) chalazion (C) blepharochalasis (D) pterygium
54. . Which of the following is a barbiturate given for its hypnotic and sedative effect preoperatively?
(A) Anectine (B) Demerol (C) atropine (D) secobarbital (Seconal)
55. A slowly progressive contracture of the palmar fascia is called
(A) Volkmann's contracture (B) carpal tunnel syndrome
(C) Dupuytren's contracture (D) talipes valgus
56. A person with a sodium of 110 mEq/L could be considered
a. Hyponatremia b. Hyponatremia c. Hyperchloremia
57. The normal Hematocrit reading for an adult male is
a. 35%- 46% b. 42%-54% c. 29%-41%
58. The normal Hemoglobin reading for an adult male is
a. 12.4-14.9 g/dl b. 14-18 g/dl c. 17-20 g/dl
59. Normal platelet values would be
a. 130,000-370,000/mm³ b. 50,000-250,000 c. 200,000-450,000
60. A normal prothrombin time(PT/PROTIME) for a male would be
a. 11.2-13 sec. b. 9.5-11.3 sec c. 9.6-11.8 sec.
61. A normal Activated Partial Thromboplastin Time (APTT) would be
a. 50sec b. 25-36sec c. 45- 55sec
62. A patient with a Potassium (K⁺) 6.0 mEq/L would be
a. Hypokalemia b. hyperkalemia c. normal

63. A serum Chloride reading of 90 mEq/L could be termed
a. Hyperchloremia b. hypochloremia c. hyperkalemia.
64. The normal specific gravity of urine is
a. 1.077-1.040 b. 1.005-1.020 c. 1.030-1.003
65. _____ is the transmission of the pain stimulus from the periphery to the brain
a. transduction b. conduction c. Nociception
66. _____ reverses the effects of opiate agonists and is used clinically to reverse respiratory depression and excessive sedation that results from opiate overdosage.
a. Narcan b. Prostaglandins c. Toradol
67. Versed, Ativan and Valium are examples of
a. benzodiazepines b. NSAIDs c. Opiates
68. A drain should never be brought out of the through the
a. mid-line b. sub-Q c. Suture line
69. A flap that bases its blood supply on the dermal and subdermal plexuses. Its orientation is random because its blood supply does not rely on a particular anatomically defined vascular bundle. This flap is a
a. axial flap b. random pattern c. fasciocutaneous
70. A burn injury to epidermis, minimal dermal injury is a
a. first degree b. second degree c. third degree d. none of the above
71. Which duct drains the Parotid gland
a. facial b. salivary. C. Hennson d. Stensen's
72. A -transverse fracture separating the maxillary alveolus from the upper midfacial skeleton is a
a. Le Fort I b. Le Fort II c. Le Fort III
73. Which chest wall tumor demonstrates a classic onion -peel appearance on x-ray
a. Ewing's sarcoma b. Tietze c. Osteogenic sarcoma
74. _____ begins in the Chisterna chili of the abdomen and empties into the left subclavian vein
a Thoracic duct b . Stenson's duct c. Lumbar vein

75. The blood supply to the lung comes from
a. pulmonary arteries b. pulmonaries, bronchial and intercostals arteries
76. What is the most common accessory lobe in the lung
a. . Azygous b. middle c. parenchyma
77. What is the location of the Azygous lobe
a. Right upper lobe region b. Left upper lobe region c. Right lower region
78. Which nerve runs anterior to the hilum
a. vagus b. Phrenic c. azygous
79. Which nerve runs posterior to hilum
a. vagus b. Phrenic c. azygous
80. Which vessel must be divided for adequate exposure of right bronchus or carina from right thoracotomy
a. aorta b. axygous c. pulmonary
81. the left testicular vein drains into the
a. IVC b. left renal vein c. portal vein
82. the right testicular vein drains into the
a. IVC b. left renal vein c. portal vein
83. Gerota's fascia surrounds the
a. liver b. spleen c. kidney
84. Which artery bleeds in bleeding duodenal ulcers
a. splenic b. gastro duodenal c. gastric d. IVC
85. Name of the lymph nodes between the pectoralis minor and major muscles
A. Rotter's b. Mayo's c. Calot's
86. The area is bordered by: 1. Inguinalligament 2. Epigastric vessels 3. Lateral border of the rectus sheath
a. Calots triangle b. Hesselbach's triangle c. Mc Burney's triangle
87. This nerve is located on top of the spermatic cord
a. inguinal b. femoral c. Ilioinguinal d. hypogastric

88. The area bordered by: 1. Cystic duct 2. Common hepatic duct 3. Cystic artery
a. Calots triangle b. Hesselbach's triangle c. Mc Burney's triangle
89. A triangle where more than 90% of gastrinomas are located, bordered by: 1. Junction of the second and third portions of the duodenum 2. Cystic duct 3. Pancreatic neck
a. gastrinoma triangle b. jejunum triangle c. pancreatic triangle
90. What is the strongest layer of the small bowel?
a. serosa b. submucosa c. mucosa
91. What is the vein that overlies the pylorus
a. vein of Mayo b. vein of Rotter c. gastric
92. What is the pouch located between the rectum and bladder or uterus
a. Mayo b. Calot's c. Douglas d. McBurney
93. Lidocaine burns when it is injected because
a. it contains epinephrine b. acidic c. it is injected to quickly
94. Epinephrine slows bleeding by
a. producing fibrin b. constricting blood vessels c. increasing lymph flow
95. Propofol, midazolam and sodium thiopental are examples of
a. induction agents b. inhalational gases c. neuromuscular blocking agents
96. Vecuronium and pancuronium are examples of
a. nondepolarizing muscle blockers b. depolarizing muscle blockers c. reverse the affects of nondepolarizing muscle blockers
97. Which agent will reverse the affects of a nondepolarizing agent
a. Neostigmine b. succinylcholine c. Demerol
98. Which agent will reverse the effects of morphine
a. Neostigmine b. succinylcholine c. Demerol d. narcan
99. What is the most common GI cancer
a. mesothelioma b. squamous cell c. adenocarcinoma
100. Which vein is formed from the junction of the splenic and superior mesenteric
a. gastric b. celiac c. common hepatic d. portal

101. When a patient is on the fracture table this nerve could be injured by the post
a. sciatic b. femoral c. pudendal d. perineal
102. The cystic artery is considered a branch of the
a. left hepatic b. right hepatic c. abdominal aorta d. splenic artery
103. The ARC OF Riolan is considered part of the blood supply for the
a. colon b. liver. c. Spleen d. Pancreas
104. The recommended pressure setting for gas during a laparoscopy
a. 25 b. 15 c. 30 d. 5
105. The Triangle of Calot is associated with the
a. Gallbladder b. Spleen c. Colon d. Kidney
106. The Islets of Langerhans located in the Pancreas secrete
a. benzocaine b. succinylcholine c. insulin d. adrenaline
107. Graves' disease is characterized by: [A] Decreased metabolic rate [B] Weight gain
[C] Restlessness [D] Hyperthyroidism
108. An inherited CNS disease that involves degeneration of the CNS is:
[A] Tic douloureux [B] Tay-Sachs [C] Reye's syndrome [D] Parkinson's disease
109. The benign tumor that damages the mastoid air cells and ossicles of the ear is:
[A] Otosclerosis [B] Acoustic neuroma [C] Cholesteatoma [D] Hydrops
110. What condition affects the medulla of the adrenal gland and causes the overproduction of
adrenaline?
[A] Cushing's syndrome [B] Addison's disease [c] Pheochromocytoma [D] Diabetic nephropathy
111. The ureters enter the bladder:
[A] Medially at the superior aspect [B] Medially from the anterior aspect [C] Medially from the posterior
aspect
[D)] Medially at the distal aspect
112. Which membrane lines the thoracic cavity?
[A] Pleura [B] Pericardium [C] Peritoneum [0] Periosteum
113. The region between the lungs is the:
[A] Diaphragm [B] Mediastinum [C] Pleural cavity [D)] Retroperitoneal space
114. Which duct carries bile from the liver and gallbladder to the duodenum?
[A] Cystic [8] Common bile [C] Wirsung [D] Common hepatic
115. Which of the following is not part of the stomach?
[A] Hilum [B] Fundus [C] Antrum [D] Body

116. Which ligament stabilizes the duodenojejunal angle?

[A] Poupart [B] Round [C] Retzius [D] Treitz

117. What valve is located between the left upper and lower chambers of the heart?

[A] Mitral [B] Aortic [C] Pulmonary [D] Tricuspid

118. Which of the following structures would not be found in a blood vessel?

[A] Tunica adventitia [B] Tunica intima [C] Tunica vaginalis [D] Tunica media

119. Which of the following is not a carpal?

[A] Lunate [B] Scaphoid [C] Capitate [D] Styloid

120. All of the following ligaments maintain the position of the uterus except the:

[A] Broad ligament [B] Ovarian ligament [C] Round ligament [D] Cardinal ligament

121. The mechanical strength of a weak eye muscle due to strabismus in a pediatric patient can be corrected by all of the following EXCEPT:

A. Tucking B. Advancement C. Recession D. Resection

122. Which of the following procedures is performed to treat anomalies associated with excessive pulmonary flow due to intracardiac left-to-right shunting?

A. Glenn procedure B. Blalock-Taussig procedure C. Pulmonary bonding
D. Blalock-Hanlon procedure

123. An emergency drug used for treating ventricular fibrillation or tachycardia is:

A. Aramine B. Atropine C. Inderal D. Calcium chloride

124. An emergency drug that increases myocardial contractility is:

A. Calcium chloride B. Levophed C. Lasix D. Isuprel

125. The surgeon's knot is:

A. Accomplished as a two-handed tie B. Only used on small vessels
C. Accomplished as a one-handed tie D. Not recommended for use in deep wounds

126. Which of the following statements concerning the principles of suture placement is correct?

A. Sutures should be placed as close to the wound edge as possible to prevent tissue necrosis.
B. Sutures should be as far as possible from the wound edge to prevent knot slippage and displacement.
C. Sutures should be placed in deep tissue to prevent hematoma.
D. Suture placement should place as much tension on the tissue as possible to promote healing.

127. Which of the following statements concerning the Bankart procedure is correct?

A. Anterior capsule is reattached to rim of the glenoid B. Glenoid is reattached to the cuff
C. Lateral advancement of the subscapularis is accomplished
D. Coracoid process is detached and inserted onto the neck of the glenoid cavity

128. The five branches of the facial nerve from superior to inferior after it enters the parotid gland is:
A. Buccal, cervical, mandibular, zygomatic, temporal
B. Temporal, zygomatic, buccal, mandibular, cervical
C. Cervical, temporal, mandibular, zygomatic, buccal
D. Mandibular, temporal, zygomatic, buccal, cervical
129. The incision for the tracheostomy is approximately 1/4" above the:
A. Thyroid cartilage
B. Cricotracheal ligament
C. Thyroid ligament
D. Suprasternal notch
130. Which of the following nerves innervates the trapezius and sternocleidomastoid muscle, and should be identified and preserved when performing a radical neck dissection?
A. Trochlear B. Accessory C. Phrenic D. Brachial
131. Which of the following structures that travel through the temporal bone must be identified and preserved when performing a mastoidectomy?
A. Mastoid sinus, facial nerve
B. Ethmoidal sinus, nasociliary nerve
C. Maxillary sinus, nasopalatine nerve
D. Paranasal sinus, palatine nerve
132. A common autologous donor site for a free flap graft for replacing the jaw bone is the:
A. Fibula B. Tibia C. Iliac D. Rib
133. The normal pH of urine is:
A. 1.2-4.6 B. 4.6-8.0 C. 8.0-11.4 D. 11.4-14.0
134. At which vertebral level is the odontoid process located?
A. C1 B. C2 C. C7 D. L5
135. Which of the following is a fibrocartilage structure of the acetabular fossa that encloses the head of the femur?
A. Labrum B. Joint C. Fossa D. Ligament
136. What is the most common liver cancer?
A. Metastatic disease B. Hemangioma C. Hepatocellular carcinoma D. Focal nodular hyperplasia
137. Removal of all liver tissue to the right of the falciform ligament is called:
A. Lobectomy B. Partial hepatectomy C. Trisegmentectomy D. Nodular resection
138. Valves of the gallbladder are called:
A. Calot's B. Heister C. Hepatic D. Interlobular
139. Which artery is susceptible to injury during a cholecystectomy?
A. Splenic B. Left hepatic C. Right hepatic D. Superior mesenteric

140. Increased WBC, bilirubin, alkaline phosphatase and positive blood culture would be associated with:
A. Cholangitis B. Pancreatitis C. Hepatitis D. Colitis

141. A tumor that involves the junction of the right and left hepatic ducts:
A. Klatskin B. Gilbert C. Courvoisier's D. Adenocarcinoma

142. Which of the following nerves is located lateral to the long thoracic nerve and innervates the latissimus dorsi muscle?
A. Thoracodorsal B. Long thoracic C. Lateral pectoral D. Subscapular

143. Dumping syndrome is a complication of
a. nissen fundoplication b. pyloroplasty c. gastric bypass

144. The most appropriate devices to prevent skin pressure ulcers and deep tissue injury in the O.R. are:
A. Sand bags B. Gel pads C. Towels D. Sheets

145. What is the drug of choice when lidocaine fails to achieve response for treating ventricular tachycardia! ventricular fibrillation during sudden cardiac arrest?
A. Esmolol B. Adenosine C. Magnesium sulfate D. Bretylium

146. When the myocardium weakens and enlarges, losing the ability to pump blood into the systemic circulation, the resulting condition is called:
A. Pericarditis B. Congestive pulmonary disease C. Heart failure D. Angina pectoris

147. A patient suffered from decreased sensation to the scrotal region and loss of the cremasteric reflex after undergoing inguinal hernia repair. These symptoms are most likely resulting from:
A. Compression of the scrotum B. Poorly approximated wound edges
C. Improper traction of spermatic cord D. Transection of the vas deferens

148. Which of the following postoperative steps will aid in avoiding potential deep vein thrombosis after gynecologic surgery?
A. Strict bed rest B. Continuous compression device
C. Activities of daily living D. Prophylactic coagulants

149. Which of the following are procaryotic?
A. Molds B. Protozoa C. Bacteria D. Plants

150. Which of the following are eucaryotic?
A. Viruses B. Fungi C. Cyanobacteria D. Bacteria

151. When a patient is in the prone position, the elbows should be properly padded and the shoulders extended no greater than 90° to avoid injury to the

- A. ulnar nerve and brachial plexus.
- B. ulnar nerve and cervical plexus.
- C. median nerve and brachial plexus.
- D. median nerve and cervical plexus.

152. If a Kelly clamp is left in a patient who underwent a cholecystectomy, which of the following legal charges can be filed?

- A. Primum Non Nocere
- B. res ipsa loquitur
- C. foreseeability
- D. intentional tort

153. Glaucoma is caused by increased pressure in which of the following structures of the eye?

- A. anterior chamber
- B. cornea
- C. iris
- D. central fovea

154. A 54-year-old female presents to the operating room with a 4 cm oblique volar forearm laceration and a 9 cm transverse dorsal forearm laceration from a dog bite. Which of the following suturing methods and materials would be the best choice for closure of the wound?

- A. interrupted silk
- B. continuous polyglactin
- C. interrupted polypropylene
- D. continuous polyester

155. A suture ligature is also referred to as

- A. a stick tie.
- B. an interrupted suture.
- C. a mattress suture.
- D. a purse string.

156. For steam sterilization, linen packs must be

- A. placed on their sides.
- B. placed crisscross on top of each other.
- C. placed in the middle of the sterilizer one at a time.
- D. laid flat with spaces in-between.

157. During general anesthetic induction in a patient whose NPO status is unknown, an anesthesia provider may ask for

- A. a transesophageal block.
- B. the Heimlich maneuver.
- C. a celiac block.
- D. the Sellick maneuver.

158. Which of the following muscles is retracted during a thyroidectomy?

- A. gastrocnemius
- B. triceps
- C. sternocleidomastoid
- D. temporalis

159. When a patient is diagnosed with varicose veins, which of the following is the MOST likely cause?

- A. blood clot
- B. gravity
- C. incompetent valves
- D. venous stasis

160. Which of the following are desired goals for the Bankart procedure?

- 1. preventing recurrence of dislocation
 - 2. reducing arthritic changes
 - 3. tightening of the infraspinatus muscle
 - 4. restoring joint motion
- A. 1, 2, and 3 only
 - B. 1, 2, and 4 only
 - C. 1, 3, and 4 only
 - D. 2, 3, and 4 only

161. Which of the following radiopaque contrast media are appropriate for cholangiogram?

1. Optiray
 2. Omnipaque
 3. barium sulfate
 4. Hypaque
- A. 1, 2, and 3 only
B. 1, 2, and 4 only
C. 1, 3, and 4 only
D. 2, 3, and 4 only

162. In the presence of a known wound infection that has previously been opened and debrided, which of the following is the preferred suture material in the event that subcutaneous tissue is closed?

- A. braided absorbable
B. braided non-absorbable
C. monofilament absorbable
D. monofilament non-absorbable

163. Which of the following radiological techniques is described as an x-ray beam that moves back and forth across the body to project cross-sectional images?

- A. ultrasonography
B. angiography
C. computerized axial tomography (CAT)
D. magnetic resonance imaging (MRI)

164. During an ORIF of the distal radius, the surgeon transects the transverse carpal ligament to

- A. provide exposure for the procedure.
- B. provide increased wrist range-of-motion postoperatively.
- C. reduce the possibility of carpal tunnel syndrome postoperatively.
- D. reduce the possibility of de Quervain's tenosynovitis postoperatively.

165. When performing scalene node biopsy, which of the following muscles is dissected to provide visualization of the scalene fat pad?

- A. deltoid
- B. platysma
- C. masseter
- D. pectoralis minor

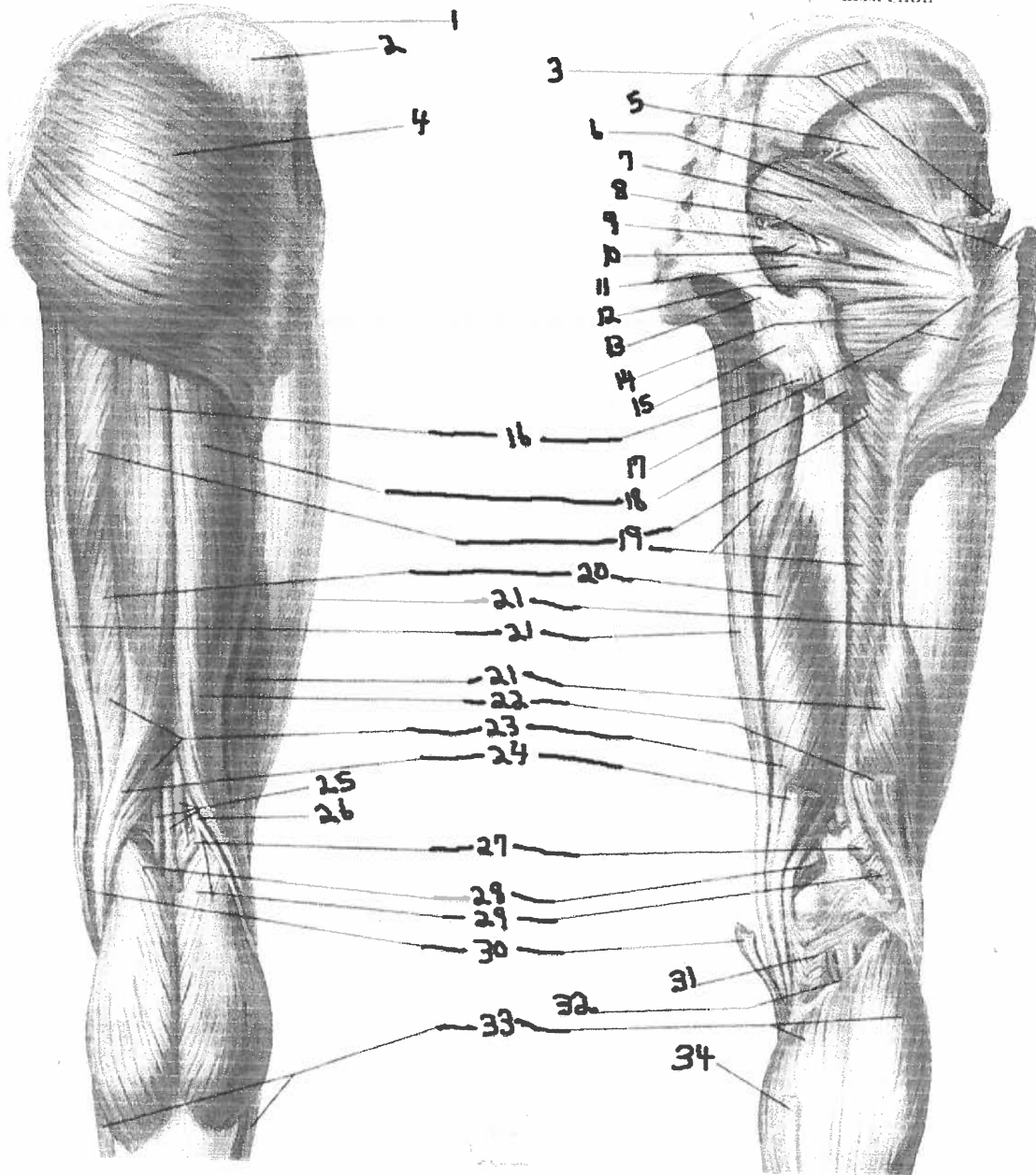
166. Which of the following is an effective way to estimate proper femoral nail diameter and length of an acute, severely comminuted femur fracture?

- A. preoperative radiographs of the affected leg
- B. postoperative radiographs of the affected leg
- C. postoperative radiographs of the unaffected leg
- D. preoperative radiographs of the unaffected leg

Label the diagram:

Superficial dissection

Deeper dissection



Practice Test 7

2011 Certification final review exam

1. Which of the nerves listed below must be protected when a patient is in the lateral position?
A. Ulnar nerve B. Brachial plexus C. Peroneal nerve D. None of the above E. A, B and C
2. When performing a carotid endarterectomy, which nerve runs parallel to the medial aspect of the common carotid artery?
A. Hypoglossal nerve B. Recurrent laryngeal nerve C. Vagus nerve D. Phrenic nerve E. Glossopharyngeal nerve
3. The cystic artery is generally a branch of the
A. Right hepatic artery B. Common hepatic artery C. Left hepatic artery D. Superior mesenteric artery
4. What are the borders of Hesselbach's triangle?
A. Inguinal ligament, rectus sheath, and the inferior epigastric artery
B. Rectus sheath, external iliac artery, and Cooper's ligament
C. The deep epigastric artery, the margin of the rectus muscle and Poupart's ligament
D. The transversalis abdominis Muscle, the internal oblique muscle, and the spermatic cord
5. The intercostal veins drain directly into the
A. Superior vena cava B. Inferior vena cava C. Azygos vein D. Pulmonary vein
6. When performing a radical cystectomy, the _____ can be ligated to control bleeding.
A. Both external iliac arteries B. Both inferior epigastric arteries C. Inferior mesenteric artery D. Hypogastric artery
7. To cause lysis of free malignant cells after resection of a cancerous lesion, lavage with _____ is performed.
A. Alcohol B. Lactated ringers solution C. Distilled water D. D5W E. Normal Saline
8. An acoustic neuroma arises from the cranial nerve.
A. 3rd
B. 9th
C. 7th
D. 8th
9. When a patient is placed on a fracture table, care must be given to pad the post between the legs to reduce injury to _____ the nerve.
A. Pudendal B. Perineal C. Sciatic D. Obturator
10. During an intra medullary rodding procedure one of the complications that can occur is
A. Air embolism B. Diffuse intravascular coagulopathy C. Fat embolism D. allergic reaction to the metal
11. The normal range for the hematocrit in a male is between
A. 49 to 54 mLdl B. 37 to 47 mLdl C. 32 to 36 mLdl D. 40 to 54 mLdl

12. A biliary-enteric fistula most frequently connects the gallbladder with the
A. Duodenum B. Ileum C. Jejunum D. Stomach E. Transverse colon
13. Onset of cramping calf pain with exercise that improves while the patient stands quietly is indicative of
A. Venous thrombosis B. Nerve involvement with spinal canal stenosis C. Overuse of the calf muscles D. Arterial inflow problems
14. Which of the following events may occur during carbon dioxide insufflation of the peritoneal cavity?
A. Hypercarbia B. Vasovagal response C. Decreased venous return D. All of the above E. None of the above Correct:
15. The most common complication in a patient with an aneurysm of the ascending thoracic aorta is
A. Aortic valve insufficiency
B. Cardiac tamponade
C. Distal dissection
D. Rupture into the right pleural cavity
E. Superior vena caval obstruction
16. Which two muscles are primarily responsible for abducting the arm the initial 90 degrees.
a. teres minor, subscapularis b. Supraspinatus, infraspinatus c. supraspinatus – deltoid
17. While examining a patient, you observe that he has slight atrophy of the right shoulder. Your H & P, reveals that he had a dislocated shoulder a month ago. You suspect the _____ muscle has atrophied due to damage of the _____ nerve when the shoulder was dislocated.
a. supraspinatus- radial b. deltoid – axillary c. infraspinatus- axillary
18. The _____, which is the most frequently ruptured; it is referred to as the artery of apoplexy (Charcot).
a. carotid artery b. anterior cerebral artery c. Lenticulostriate artery
19. Each lateral ventricle is located within a cerebral hemisphere. Both communicate with the third ventricle through a single opening known as the
a. Foramen of Monro b. Foramen of Maine c. Aqueduct of Sylvius
20. The Third Ventricle empties into the Fourth through the
a. Aqueduct of Sylvius b. Foramen of Monro c. Foramen of Charot d. Don't know
21. _____ is the weakest and most important point for the ventricular system, due to its location and small size
a. Lateral Ventricle b. Aqueduct of Sylvius c. Foramen of Maine
22. Which gland is also known as the master gland?
(A) thyroid (B) pituitary (C) adrenal (D) parathyroid

23. The triangular muscle of the shoulder that abducts the arm is the
(A) biceps brachii (B) deltoid (C) triceps brachii (D) serratus anterior
24. One of the principal muscles of the pelvic floor is the
(A) sartorius (B) levator ani (C) internal oblique (D) rectus abdominis
25. Meningiomas are benign tumors that originate in the
a. mid brain b. dura c. pituitary gland d. spinal cord
26. The recurrent laryngeal nerve which supplies the vocal cords lies very close to the
a. inferior thyroid artery
b. brachial artery
c. external carotid
d. subclavian artery
27. In the fetus the central artery of the retina extends as far as the lens and passes through the vitreous, but previous to birth that position which is beyond the retina disappears and remains as the
a. choroids b. choroid canal c. hyaloid canal.
28. What constitutes the "pacemaker" of the heart that normally sets the beat?
A) atrioventricular node B) sinoatrial node C) Purkinje fibers D) bundle branches
E) pectinate muscles
29. Structures that unite to form the common bile duct include:
(1) hepatopancreatic sphincter
(2) porta hepatis
(3) cystic duct.
(4) common hepatic duct
(5) duodenal papilla
A) 1, 2 B) 1, 2, 3 C) 3,4 D) 1, 3, 5 E) 2, 4
30. The first portion of the large intestine is the: (A) sigmoid (B) cecum
(C) colon (D) ileum
31. The appendix is attached to the
(A) ascending colon (B) transverse colon (C) cecum (D) descending colon
32. The primary function of the gallbladder is
(A) storage of bile (B) production of bile (C) digestion of fats (D) drainage of the liver
33. When the gallbladder contracts, bile is ejected into the
(A) liver (B) duodenum (C) jejunum (D) pancreas

34. The area in the duodenum where the common bile duct and the pancreatic duct empty is called
(A) the duct of Santorini (B) the ampulla of Vater
(C) Wirsung's duct (D) an islet of Langerhans
35. The P wave displays _____ and the PR segment is caused by the delay in the AV node
a. atrial depolarization b. electrical activity c. repolarization
36. Both direct and indirect hernias are the result of tears in the
a. Transversalis fascia
b. abdominal wall
c. oblique fascia
37. What nerves must be identified during an inguinal hernia repair
d. Iliohypogastric and ilioinguinal
e. Inguinal and abdominal
f. Femoral and inguinal
38. _____ hernia that contains two loops of bowel
g. Maydl's
h. Pantaloon
i. Richter's hernia
39. The coronary arteries originate at the base of the ascending aorta, also known as the
a. sinuses of Valsalva b. pulmonary sinuses c. coronary sinuses
40. The left coronary artery gives rise to the
a. left and right main b. circumflex artery and left marginal c. posterior interventricular
41. The _____ muscle is the important landmark in fractures of the forearm.
a. *flexor pollicis longus muscle* b. flexor digitorum c. pronator teres
42. _____ fracture involves the lower end of the radius; it is nearly transverse and within 1 inch of the articular surface of the bone.
a. Smith's b. Campbell's c. Colle's
43. This fracture is usually produced by a fall on the back of the hand with the wrist flexed, also called a reverse colle's
a. Smith b. Campbell's c. Richardson's
44. The _____ is the most commonly fractured of all the carpal bones.
a. lunate b. trapezoid c. navicular

45. The Most common fracture of the metacarpals is the "boxers fracture"
a. fifth metacarpal b. forth metacarpal c. first metacarpal
46. _____ is a contracture of the Palmer fascia.
a. Carpal tunnel b. De Ouervain's c. Dupuytren's
47. _____ compression of abductor pollicis longus and extensorpollicis brevis tendon near radial styloid process.
a. Carpal tunnel b. De Ouervain's c. Dupuytren's
48. The Liver is covered by
a. Glisson's capsule.b. gerota's fascia c. Palmer fascia
49. The Sphincter of Oddi is located in the
a. liver b. Ampulla Vater. C. pancreas
50. _____ cells are the phagocytic cells of liver.
a. white blood b. Kupffer's c. Lobules
51. The junction of the superior mesenteric and splenic veins forms the
a. inferior vena cava b. femoral vein c. portal vein
52. "Surgical landmark" The duodenojejunal flexure is fixed by the
a. ligament of Treitz. b. transverse flexure c. mesenteric ligament
53. The cecum, ascending colon, hepatic flexure, and proximal portion of the transverse colon receive arterial blood supply from the _____ artery
a. inferior mesenteric b. superior mesenteric c. abdominal aorta
54. The _____ artery supplies blood to the distal transverse colon, splenic flexure, descending colon, and sigmoid.
a. inferior mesenteric b. superior mesenteric c. abdominal aorta
55. Highly Selective Vagotomy (Parietal Cell Vagotomy) is the most frequently performed elective surgery for peptic ulcer disease. The procedure is accomplished by disconnecting the _____ from the lesser curvature of the stomach.
a. lateral nerves b. inferior nerves c. nerves of Latarjet
56. A rotator cuff repair is called a
(A) Bankart(B) Keller (C) McBride (d) Silver
57. The congenital deformity known as clubfoot is surgically referred to as
(A) talipes valgus(B) talipes varus .(C) hallux valgus (d) exostosis

58. The most frequent site of cartilage tears in the knee joint are at the
(A) collateral ligament (B) cruciate ligament
(C) lateral meniscus (D) medial meniscus
59. A Wilms' tumor, the most common intraabdominal childhood tumor is known as a
(A) nephroblastoma (B) neuroblastoma (C) aganglionic colon (D) intussusception
60. Incomplete closure of paired vertebral arches that can be treated surgically is known as
(A) spina bifida (B) pectus excavatum (C) spastic palsy (D) encephalocele
61. Non-closure at birth of the duct that carries blood from the pulmonary artery directly to the aorta is termed
(A) tetralogy of Fallot (B) coarctation of the aorta
(C) patent ductus arteriosus (D) anomalous venous return
62. The most common congenital cardiac anomaly in the cyanotic group is
(A) tricuspid atresia (B) tetralogy of Fallot
(C) patent ductus arteriosus (D) truncus arteriosus
63. The mechanical strength of a weak eye muscle due to strabismus in a pediatric patient can be corrected by all of the following EXCEPT
(A) tucking (B) advancement (C) recession (D) resection
64. Xylocaine is used intravenously for (A) installation of local anesthesia
(B) treatment of cardiac arrhythmias (C) diuretic action (D) restoration of blood volume
65. The Thoracic Duct: Same length as the Spinal cord (18 inches) begins in the
a. spinal column b. abdomen at the Cisterna Chyli c. base of the skull
66. The tibial and common peroneal nerves are terminal branches of the
a. femoral b. sciatic c. splenic
67. What is the obliterated umbilical vein called
a. Coronary ligament b. Ligamentum Teres c. gallbladder fosa
68. What fraction of Total Liver blood flow comes from the portal vein
a. one third b. two thirds c. one half
69. Which fracture is most commonly associated with a fat embolism
a. femur. B. pelvic c. ulna d. radius

70. What nerve is at risk for injury in a humerus shaft fracture
a. ulna b. radial c. median
71. What is a Monteggia fracture
a. distal radius plus ulna b. femur c. proximal ulna plus radial head
72. What nerve is trapped in carpal tunnel syndrome
a. radial b. median c. ulna
73. The _____ is a prolongation of breast tissue from the upper outer part of the breast, which passes through an opening in the axillary fascia, called the foramen of Langer.
a. Axillary tail of Spence b. Cooper's ligament c. axillary fascia d. sebaceous gland
74. _____ nodes are located between the pectoralis major and minor muscles
a. axillary b. inguinal c. Rotter's d. thoracic
75. _____ nerve Arises from three roots: 5th, 6th, and 7th cervical nerves. Runs along the anterior-lateral chest wall and innervates the serratus anterior muscle Injury causes a "winged scapula."
a. Long thoracic b. thoracic c. Thoracodorsal
76. _____ nerve (lateral axilla) Arises from the posterior cord of the brachial plexus Runs along the medial surface of the latissimus dorsi muscle, which it innervates.
a. Long Thoracic b. Thoracodorsal c. median d. thoracic
77. A lower oblique incision is a
(A) Pfannenstiel (B) inguinal (C) paramedian (D) midabdominal
78. The curved transverse incision used for pelvic surgery is
(A) midabdominal transverse (B) Poupart (C) Pfannenstiel (D) McVey
79. A chalazion is a chronic inflammation of the (A) lacrimal gland
(B) meibomian gland (C) eyelid (D) conjunctiva
80. What procedure is done for chronic dacryocystitis?
(A) extirpation (B) lacrimal duct probing (C) myectomy
(D) dacryocystorhinostomy
81. the node of Lund is located in the
a. triangle of Calot b. inguinal canal c. patella bursa
82. Where is Hartmann's pouch located
a. gallbladder infundibulum b. liver bed c. stomach d. apex of the gallbladder

83. What are the small ducts that drain bile directly into the gallbladder called?
A. copper's b. Hartmann's c. Luschka
84. What is the main pancreatic duct called
a. Luschka b. Wirsung c. dorsal pancreatic d. Santorini
85. What is another name for the small pancreatic duct?
a. Wirsung b. Santorini c. Luschka d. Calot's
86. What three structures comprise the triangle of Calot
a. cystic artery, right hepatic duct, common bile duct
b. cystic duct, common hepatic, lower edge of the liver
c. cystic duct, common hepatic duct, aorta
87. Below the _____ line, all three abdominal wall muscle fascias form the anterior rectus sheath fascia. Above the line, the transversus and half of the internal oblique fascia form a posterior rectus sheath fascia.
a. arcuate b. galen c. fascia
88. The _____ line is located between the external and internal anal sphincters.
a. Treves b. Jackson's c. Hilton
89. The avascular area in the mesentery to the left of the middle colic artery is called
a. space of Riolan b. area of Galen c. space of Jackson
90. Clostridium perfringens is associated with which clinical condition?
A. Gas gangrene
B. Toxic shock syndrome
C. Botulism
D. Anthrax
91. Extreme positions of the head and arm can cause injury to the
(A) cervical plexus
(B) radial nerve
(C) ulnar nerve
(D) brachial plexus
92. The position for most open bladder surgery would be
(A) lithotomy
(B) supine, bolster under pelvis
(C) reverse Trendelenburg
(D) Fowler's, modified

93. In which circumstance could the patient sustain injury to the pudendal nerves?

- (A) positioned on the fracture table
- (B) positioned in lateral chest
- (C) positioned in lithotomy
- (D) positioned on the urological table

94. Which factor is important to consider when positioning the aging patient?

- (A) skeletal changes
- (B) limited range of motion of joints
- (C) tissue fragility
- (D) all of the above

95. Normal Adult Male Range for RBC is

- a. 4.2 - 5.6 mill/mcl b. 3.2 - 6 mill/mcl c. 2.2 - 6.1 mill/mcl

96. Normal Adult Range for Sodium

- a. 120-155 mEq/L b. 135-146 mEq/L c. 110 - 160 mEq/L

97. Normal Range for potassium

- a. 3.5 - 5.5 mEq/L b. 3.0 - 7.2 mEq/L c. 5.5 - 8.2 mEq/L

98. A surgeon's knot is one with a _____ half hitch for the first throw

- a. single b. reverse c. double

99. A simple suture should have a square profile to avoid _____ skin edges

- a. inverting b. extending c. rounding d. squaring

100. The CO₂ laser beam can damage _____ and cause immediate pain

- a. retina b. cornea c. neither

101. Pneumo-peritoneum CO₂ gas, pressure is kept between

- a. 10-17 b. 18 -25 c. 14-16

102. Improperly applied plaster or subsequent swelling produces pressure of the cast against underlying soft tissues could cause

- a. pain b. improper healing c. Volkmann's ischemic paralysis d. all the above

103. The three protective tissue layers called the meninges lie in the following order starting with the most superficial:
- arachnoid, dura mater, pia mater
 - dura mater, pia mater, arachnoid
 - dura mater, arachnoid, pia mater
104. These tumors account for 50% of all primary brain tumors
- astrocytomas
 - schwannomas
 - pituitary adenomas
 - bone tumors
105. Fissure of Sylvius separates the
- frontal and temporal lobe
 - parietal and occipital lobe
 - occipital and temporal lobe
 - temporal and olfactory area
106. The great sensory nerve of the face and head is the
- trochlear
 - oculomotor
 - hypoglossal
 - trigeminal
107. Name the eighth cranial nerve
- trochlear
 - vestibulocochlear
 - vagus
 - accessory
108. The ophthalmic artery divides into the
- supraorbital and supratrochlear
 - internal and external carotid
 - medial and lateral ophthalmic
109. Which cranial nerve emerges from the medulla, passes through the skull, and descends through the neck region into the thorax and abdominal region?
- IX
 - X
 - XI
 - XII
110. Which cranial nerve carries impulses for sense of smell?
- I
 - II
 - III
 - IV
111. It is usually caused by an injury to the middle meningeal artery
- epidural hematoma.
 - intracerebral hematoma.
 - subdural hematoma.
 - cerebral aneurysm

112. The common carotid reaches the upper border of the thyroid cartilage, where it forms a dilation known as the
- carotid sinus
 - carotid body
 - carotid bulb
 - external carotid
113. The carotid body and carotid sinus are two sensory structures; the carotid body is a chemoreceptor and the carotid sinus is a
- presoreceptor
 - chemoreceptor also
114. The dissection of the lateral peritoneal attachments of the duodenum to allow inspection of the duodenum, pancreas and other retroperitoneal structures is called
- a _____ maneuver.
- a. Pringle b. Kocher c. Cattel
115. Mobilization of the descending colon to the midline. This maneuver will expose the abdominal aorta
- a. Pringle b. Kocher c. Cattel d. Mattox
116. Meckel's diverticulum is found in the
- (A) esophagus (B) sigmoid colon (C) ileum (D) duodenum
117. A retention suture passes through all of the following EXCEPT
- (A) mesentery tissue (B) rectus muscle
(C) fascial tissue (D) subcutaneous tissue
118. A hernia that passes through the inguinal ring into the inguinal canal is termed
- (A) direct (B) indirect (C) pantaloon (D) sliding
119. How are the legs placed in the lateral position?
- (A) both legs are straight (B) both legs are flexed
(C) the lower leg is flexed with the upper leg straight (D) the lower leg is straight with the upper leg flexed
120. When assisting with a cast application one must
- (A) handle case with flat open hands
(B) hold plaster bandage under water horizontally to allow air bubble to escape
(C) provide water in bucket at body temperature
(D) place all rolls to be used in water and remove as surgeon requests each
121. A physiologic salt solution used intravenously when the body needs additional sodium, calcium, and potassium is
- (A) Dextran (B) normal saline (C) dextrose in saline (D) Ringer's lactate

122. Which nasal sinus can be approached only through an external eyebrow incision?
(A) sphenoid (B) ethmoid (C) frontal (D) maxillary
123. Which sinus is surgically opened in a Caldwell-Luc procedure?
(A) ethmoid (B) frontal (C) maxillary (D) sphenoid
124. Each of the following relate to shock EXCEPT
(A) hypertension (B) clammy, cool skin
(C) weak, rapid pulse (D) sweating
125. What is the action of Lasix?
(A) anti-inflammatory (B) diuretic
(C) central nervous system (CNS) depressant (D) contrast media
126. Unauthorized discussion of a patient's surgery outside of the OR constitutes a law- suit for
(A) defamation (B) negligence (C) assault and battery (D) invasion of privacy
127. Normal platelet values would be
a. 130,000-370,000/mm³ b. 50,000-250,000 c. 200,000-450,000
128. A normal prothrombin time(PT/PROTIME) for a male would be
a. 11.2-13 sec. b. 9.5-11.3 sec c. 9.6-11.8 sec.
129. A normal Activated Partial Thromboplastin Time (APTT) would be
a. 50sec b. 25-36sec c. 45- 55sec
130. A patient with a Potassium (K⁺) 6.0 mEq/L would be
a. Hypokalemia b. hyperkalemia c. normal
131. A serum Chloride reading of 90 mEq/L could be termed
a. Hyperchloremia b. hypochloremia c. hyperkalemia.
132. The normal specific gravity of urine is
a. 1.077-1.040 b. 1.005-1.020 c. 1.030-1.003
133. _____ reverses the effects of opiate agonists and is used clinically to reverse respiratory depression and excessive sedation that results from opiate overdose.
a. Narcan b. Prostaglandins c. Toradol
134. Versed, Ativan and Valium are examples of
a. benzodiazepines b. NSAIDs c. Opiates

135. A drain should never be brought out of the through the
a. mid-line b. sub-Q c. Suture line
136. What is the most common accessory lobe in the lung
a. . Azygous b. middle c. parenchyma
137. . Propofol, midazolam and sodium thiopental are examples of
a. induction agents b. inhalational gases c. neuromuscular blocking agents
138. 99. What is the most common GI cancer
a. mesothelioma b. squamous cell c. adenocarcinoma
140. Valves of the gallbladder are called
a. calot's b. Heister c. hepatic
- 141.. Which artery is susceptible to injury during a cholecystectomy
a. splenic b. right hepatic c. left hepatic
142. increased WBC, bilirubin, alkaline phosphatase;positive blood culture would be associated with
a. cholangitis b. pancreatitis c. flu
143. . Tumor that involves the junction of the right and left hepatic ducts
a. Klatskin b. Gilbert c. Courvoisier's
144. Name of the cutaneous nerve that crosses the axilla in a tranverse fasion, that many surgeons try to preserve
a. thoracodorsal b. long thoracic c. lateral pectoral d. intercostobrachial nerve
145. The double-layered, apron-like structure that hangs from the lower border of the stomach, covering the intestines, is the
A. greater omentum. B. mesentery. C. ligamentum. D. peritoneum
146. The division of a reproductive cell into two cells with 23 chromosomes each is called
A. mitosis. B. meiosis. C. spontaneous generation. D. cytokinesis.
147. Which of the following is not an inhalation anesthetic agent?
A. Enflurane (Ethrane) B. Fentanyl citrate and droperidol (Innovar)
C. Ether D. Nitrous oxide
148. Dextran is used parenterally to
A. expand blood plasma volume. B. nourish vital tissue.
C. carry oxygen through the system. D. increase blood viscosity
149. The doctrine of respondeat superior refers to
A. the legal terms for assault and battery.
B. employer liability for employee's negligent conduct.
C. professional misconduct.
D. "the thing speaks for itself."

150. The legal doctrine that mandates every professional to carry out his or her duties according to national standards of care practiced throughout the country is the
- A. doctrine of reasonable man.
 - B. doctrine of res ipsa loquitur.
 - C. doctrine of respondeat superior.
 - D. doctrine of informed consent.
151. Two muscles that form the pelvic diaphragm are
- a. levator ani and coccygeus
 - b. pubococcygeus and iliococcygeus
152. The bladder is supported by the rectovesical fascia called
- a. a. Monroe
 - b. Cline
 - c. Winslow
 - d. Henry
 - e. Denonvillier's
153. The prevesical or retropubic space of _____ is that space which is behind the pubic bone and in front of the urinary bladder.
- a. Retzius
 - b. Denonvillier
 - c. Winslow
 - d. Monroe
154. The arterial supply to the bladder is derived mainly from the
- a. obturator
 - b. internal pudendal
 - c. internal iliac artery
155. Which of the following arteries is contained within the cardinal ligament?
- A. Ovarian.
 - B. Uterine.
 - C. Superior vesical.
 - D. Obturator.
156. The _____ ligament supports the talar head and fills the interval between the sustentaculum tali and the tuberosity of the navicular bone.
- a. spring
 - b. talar
 - c. navicular
 - d. plantar
157. The ovary is suspended from the posterior leaf of the broad ligament by the
- a. Mesovarium
 - b. parietal peritoneum
 - c. ovarian ligament
 - d. uterus
158. The ovarian artery is a branch of the
- a. pelvic artery
 - b. cystic artery
 - c. rectal artery
 - d. abdominal aorta
159. These two narrow flat bands containing fibrous tissue and non-striated muscle run in the upper part of the broad ligaments just below and in front of the uterine tubes, passing over the vesical vessels and nerve
- a. cardinal ligaments
 - b. Uterosacral ligaments
 - c. Round ligaments
160. The _____ cranial nerve innervates the Superior oblique muscle.
- a. Olfactory (I)
 - b. Optic (II)
 - c. Oculomotor (III)
 - d. Trochlear (IV)
 - e. Trigeminal V

161. The _____ cranial nerve innervates: *Sensory* to taste receptors on anterior 2/3 of tongue; *motor* to muscles of facial expression, lacrimal gland, submandibular salivary gland, sublingual salivary glands.

a. Trigeminal b. (V) Abducens c. (VI) Facial (VII)

162. A fragment usually on the lateral surface of the medial femoral condyle loses its blood supply and separates from the rest of the femur. This condition is referred to as:

a. Chondromalacia b. Osteochondritis dissecans c. Bursitis

163. This condition consists of softening, yellow discoloration, fraying and degeneration of the articular surface of the kneecap.

a. Chondromalacia b. Osteochondritis dissecans c. Bursitis

164. The long vertical strap like muscle of the abdominal wall is the

a. external oblique c. transverse abdominis

b. internal oblique d. rectus abdominis

165. The inner layer of the wall of the digestive tract is called the

a. serosa c. muscularis

b. submucosa d. mucosa

166. Parasympathetic innervation to the stomach is provided by the

a. gastric nerve c. vagus nerve

b. splenic nerve d. inferior esophageal nerve

167. The blood supply to the kidneys is provided via the

a. celiac artery c. iliac artery b, inferior phrenic artery d. renal artery

168. Which muscle is responsible for emptying the bladder and closing the bladder orifice?

a. detrusor c. obturator internus b. levator ani d. pelvic diaphragm

169. Which important clinical landmark is marked by ureteral and urethral orifices?

a. bladder neck c. pelvic diaphragm

b. bladder orifice d. trigone

170. The blood supply for the bladder is derived from the

a. cystic artery c. renal artery

b. perineal artery d. vesical artery

171. In which zone do the glomeruli and Bowman's capsules reside?

a. cortex c. medulla

b. hilum d. minor calyces

172. Which structures unite to form the renal pelvis?
a. major calyces c. renal papilla
b. minor calyces d. renal pyramid
173. The pacemaker of the heart is referred to as the
a. A V node c. bundle of His
b. SA node d. cardiac conduction node
174. Receives unoxygenated blood from the body.
a. left atrium c. left ventricle
b. right atrium d. right ventricle
175. Pumps blood into the pulmonary artery.
a. left atrium c. left ventricle
b. right atrium d. right ventricle
176. Pumps blood into the aorta.
a. left atrium c. left ventricle
b. right atrium d. right ventricle
177. The coronary arteries arise from the
a. aorta c. left ventricle
b. vena cavae d. right ventricle
178. The coronary veins empty into the
a. vena cavae c. right ventricle
b. right atrium d. coronary sinus
179. This artery supplies blood to the walls of the left atrium and left ventricle. a. left anterior descending c. circumflex
b. left main d. marginal
180. The valve between the left atrium and left ventricle is the
a. tricuspid c. mitral b. pulmonary d. aortic
181. The use of screw and plate geometry to apply forces at a fracture site is called a. dynamic compression b. cancellous compression c. geometric compression
182. Which of the following muscles does not make up the rotator cuff?
a. supraspinatus c. deltoid
b. infraspinatus d. subscapularis
183. The valve between the right atrium and right ventricle is the
a. tricuspid c. mitral b. pulmonary d. aortic

184. Which structure is attached to the valvular cusps and prevent valves from swinging back into the atria
a. papillary muscle c. chordae tendinea
b. myocardial cords d. auricular tissue
185. The pulmonary veins number
a. one c. three
b. two d. four
186. Which structure prevents the trachea from collapsing?
a. larynx c. hyaline cartilage b. thyroid cartilage d. cricoid cartilage
187. Which of the following arteries typically provides the major blood supply to the head of the femur?
A. Obturator. B. Inferior gluteal. C. Medial femoral circumflex. D. Deep femoral.
188. Which of the following nerves provides innervation to the trapezius muscle
A. Suprascapular B. Spinal accessory. C. Axillary. D. Thoracodorsal.
189. Which of the following nerves is a branch of the posterior cord of the brachial plexus
A. Lateral pectoral. B. Musculocutaneous. C. Axillary. D. Ulnar.
190. Your patient has a fracture of the neck of the radius. What nearby structure is MOST likely to be damaged by this fracture?
A. Superficial radial nerve. B. Deep radial nerve. C. Musculocutaneous nerve.
D. Radial artery.
191. The superior vena cava is formed by the junction of the:
A. right and left subclavian veins. B. azygos and hemiazygos veins.
C. right and left internal thoracic veins. D. right and left brachiocephalic veins.
192. In a fracture of the surgical neck of the humerus, which of the following is MOST at risk because of its close association with the surgical neck?
A. Radial nerve. B. Posterior humeral circumflex artery.
C. Deep brachial artery. D. Lower subscapular nerve.
193. Trauma to the medial epicondyle of the humerus is most likely to injure the:
A. median nerve. B. ulnar nerve.
C. radial nerve. D. musculocutaneous nerve.
194. Injury to the thoracodorsal nerve would cause all of the following findings EXCEPT:
A. weakness of adduction at the shoulder. B. weakness of scapular elevation.
C. weakness of internal rotation at the shoulder. D. weakness of extension at the shoulder.

195. Hernias that occur in Hesslebach's Triangle are

- a. indirect
- b. direct
- c. Richter's

196. Both direct and indirect hernias are the result of tears in the

- j. Transversalis fascia
- k. abdominal wall
- l. oblique fascia

197. What nerves must be identified during an inguinal hernia repair

- m. Iliohypogastric and ilioinguinal
- n. Inguinal and abdominal
- o. Femoral and inguinal

198. Hernia that contains two loops of bowel

- p. Maydl's
- q. Pantaloon
- r. Richter's hernia
- s.

199. In laparoscopic hernia repair, Stapling is also avoided in the triangular area inferior to the internal inguinal ring, called the

- A. nerve region
- b. triangle of doom
- c. femoral triangle

200. In laparoscopic hernia repair stapes should not be placed below the lateral iliopubic tract because of the

- a. femoral and inguinal nerve
- b. obturator artery
- c. genitofemoral and lateral femoral cutaneous nerve.

Questions 1 – 5 from the Base of Heart: Posterior view plate

1. Number 12 is pointing toward

- a. left ventricle
- b. right ventricle
- c. left apex
- d. right artery

2. Number 15 is pointing toward

- a. left inferior pulmonary vein
- b. left inferior artery
- c. right inferior pulmonary vein
- d. inferior vena cava

3. Number 2 is pointing toward

- a. left pulmonary artery
- b. right pulmonary artery
- c. Left pulmonary vein
- d. Aorta

4. Number 5 is pointing toward

- a. left atrium
- b. pericardial reflection
- c. left auricle
- d. right atrium

5. Number 13 is pointing toward

- a. superior vena cava
- b. inferior vena cava
- c. aorta
- d. right pulmonary vein

Netter Heart Review: Questions 6-10 from the Base and diaphragmatic surfaces posteroinferior view plate

6. Number 2 is pointing toward

- a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

7. Number 1 is pointing toward

- a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

8. Number 22 is pointing toward

- a. brachiocephalic trunk b. left subclavian c. superior vena cava d. left common carotid artery

9. Number 7 is pointing toward

- a. left inferior pulmonary vein b. oblique vein c. left atrium d. coronary sinus

10. Number 6 is pointing toward

- a. left inferior pulmonary vein b. oblique vein c. interventricular branch of right coronary artery d. interventricular branch of left coronary artery

Netter Thyroid gland anterior view plate: Questions 11-15

11. Number 8 is pointing toward

- a. internal carotid b. superior laryngeal nerve c. external carotid d. common carotid

12. Number 38 is pointing toward

- a. median cricothyroid ligament b. cricoid cartilage c. external cricoid cartilage d. thyroid cartilage

13. Number 32 is pointing toward

- a. right lobe b. left lobe c. isthmus d. pretracheal lymph node

14. Number 39 is pointing toward

- a. thyroid cartilage b. left lobe c. isthmus d. pretracheal lymph node

15. Number 28 is pointing toward

- a. Vagus nerve b. Phrenic nerve c. left recurrent laryngeal nerve d. vagus nerve

Superior view Uterus plate

Questions 16-20

16. Line 17 is pointing toward

- a. cervix b. fundus c. rectouterine fold d. deep inguinal ring

17. Line 25 is pointing toward

- a. vesicouterine pouch b. ureteric fold c. pararectal fossa d. body of uterus

18. Line 24 is pointing toward

- a. Mesosalpinx b. bladder c. fundus of uterus d. ovary

19. Line 5 is pointing toward

- a. abdominal aorta b. median sacral vessels c. sigmoid colon d. iliac vessels

20. Line 20 is pointing toward
a. broad ligament b. round ligament c. ovarian ligament d. rectouterine fold

Posterior View Shoulder
Questions 21-25

21. Number 11 is pointing toward
a. Supraspinatus muscle b. Teres Minor c. Teres Major d. infraspinatus muscle
22. Number 9 is pointing toward
a. triangle of auscultation b. Teres Minor c. Teres Major d. infraspinatus muscle
23. Number 15 is pointing toward
a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major
24. Number 20 is pointing toward
a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major
25. Number 17 is pointing toward
a. semispinalis capitis b. splenius capitis c. levator scapulae d. Rhomboid Major

Anterior View of the Shoulder
Questions 26-30

26. Number 1 is pointing toward
a. deltoid b. clavicle c. pectoralis major d. acromion
27. Number 16 is pointing toward
a. omohyoid b. sternocleidomastoid c. pectoralis major d. serratus anterior
28. Number 5 is pointing toward
a. deltoid b. cephalic vein c. 6th costal cartilage d. anterior layer of rectus
29. Number 7 is pointing toward
a. biceps brachii long head b. biceps brachii short head c. pectoralis major d. serratus anterior
30. Number 10 is pointing toward
a. latissimus dorsi b. external oblique c. pectoralis major d. serratus anterior

Questions 31-35 from plate Knee Anterior view; Right knee in extension

31. Number 3 is pointing toward
a. vastus lateralis muscle b. vastus medialis muscle c. vastus intermedius muscle
d. Iliotibial tract
32. Number 24 is pointing toward
a. vastus lateralis muscle b. vastus medialis muscle c. vastus intermedius muscle
d. medial patellar retinaculum
33. Number 2 is pointing toward
a. articularis genus muscle b. vastus medialis muscle c. vastus intermedius muscle
d. Iliotibial tract

34. Number 21 is pointing toward
a. gracilis b. sartorius c. tibial collateral d. semitendinosus

35. Number 13 is pointing toward
a. tibialis anterior b. extensor longus c. tibial collateral d. semitendinosus

Questions 36-40 Knee Anterior view; joint opened, knee slightly in flexion plate

36. Number 8 is pointing toward
a. vastus medialis b. vastus lateralis c. articularis genus d. Rectus

37. Number 4 is pointing toward
a. cruciate ligaments b. medial meniscus c. lateral meniscus d. infrapatellar synovial fold

38. Number 13 is pointing toward
a. cruciate ligaments b. medial meniscus c. lateral meniscus d. infrapatellar synovial fold

39. Number 20 is pointing toward
a. suprapatellar bursa b. patella c. tibia d. femur

40. Number 17 is pointing toward
a. suprapatellar bursa b. synovial membrane c. Articularis muscle d. infrapatellar fat pad

Questions 41-45 from Sagittal section (lateral to midline of knee) plate

41. Number 11 is pointing toward
a. suprapatellar bursa b. synovial membrane c. Articularis muscle d. infrapatellar synovial fold

42. Number 10 is pointing toward
a. suprapatellar bursa b. synovial membrane c. patellar ligament d. infrapatellar fat pad

43. Number 19 is pointing toward
a. femur b. tibia c. fibula d. Quadriceps femoris tendon

44. Number 3 is pointing toward
a. knee joint b. tibia tuberosity c. fibula bursa d. articular cartilages

45. Number 8 is pointing toward
a. suprapatellar bursa b. deep infrapatellar bursa c. subcutaneous infrapatellar bursa
d. infrapatellar synovial fold

Questions 46-50 from right knee: posterior view plate

46. Number 18 is pointing toward
a. fibular collateral ligament b. popliteal ligament c. tibial collateral ligament d. biceps femoris

47. Number 4 is pointing toward
a. interosseous membrane b. oblique popliteal ligament c. adductor magnus d. biceps femoris

48. Number 1 is pointing toward
a. interosseous membrane b. popliteal ligament c. adductor magnus d. biceps femoris

49. Number 21 is pointing toward
a. popliteus muscle b. plantaris muscle c. lateral head gastrocnemius muscle d. medial head gastrocnemius muscle

50. Number 16 is pointing toward
a. popliteal ligament b. biceps femoris tendon c. adductor magnus tendon d. femur

Questions 51-55 from Muscle of the hip and thigh: posterior view plate

51. Number 33 is pointing toward
a. popliteus muscle b. plantaris tendon c. soleus muscle d. gastrocnemius muscle

52. Number 34 is pointing toward
a. popliteus muscle b. plantaris tendon c. soleus muscle d. gastrocnemius muscle

53. Number 7 is pointing toward
a. piriformis b. obturator c. superior gemellus d. inferior gemellus

54. Number 11 is pointing toward
a. piriformis b. obturator c. superior gemellus d. inferior gemellus

55. Number 10 is pointing toward
a. piriformis b. obturator c. superior gemellus d. inferior gemellus

Heart In situ plate: Questions 56-60

56. Number 7 is pointing toward
a. internal thoracic artery b. anterior scalene muscle c. musculophrenic d. brachial plexus

57. Number 21 is pointing toward
a. internal thoracic artery b. superior epigastric artery c. musculophrenic d. artery subclavian artery

58. Number 5 is pointing toward
a. phrenic b. recurrent laryngeal c. vagus d. costal

59. Number 30 is pointing toward
a. phrenic b. recurrent laryngeal c. vagus d. costal

60. Number 27 is pointing toward
a. phrenic b. recurrent laryngeal c. vagus d. costal

Questions 61-72 from Ureters in Male Anterior Plate

61. Number 19 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery

62. Number 9 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery

63. Number 20 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery

64. Number 17 is pointing toward
a. sigmoid artery b. obturator artery c. superior vesical artery d. internal iliac artery

65. Number 4 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
66. Number 7 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
67. Number 21 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
68. Number 6 is pointing toward
a. Right colic artery b. left colic artery c. ileocolic artery d. testicular vessels e. left ureter
69. Number 22 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
70. Number 10 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
71. Number 3 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery
72. Number 11 is pointing toward
a. inferior mesenteric artery b. superior mesenteric artery c. superior rectal artery
d. middle rectal artery e. external iliac artery

Questions 73-80 from Ureters in female superior view:

73. Number 14 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
74. Number 8 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
75. Number 11 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
76. Number 12 is pointing toward
a. uterine artery b. obturator artery c. internal iliac artery d. common iliac artery
e. vaginal artery f. superior vesical artery
77. Number 6 is pointing toward
a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament
78. Number 1 is pointing toward
a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament
79. Number 5 is pointing toward
a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament
80. Number 15 is pointing toward
a. root of mesentery b. sigmoid mesocolon c. broad ligament d. ureter
e. intersigmoid recess f. round ligament

Practice Test 8

Category II 1-235

1. Which of the following is not an intestinal instrument?
 - A. Allen forceps
 - B. Best clamp
 - C. De Lee forceps
 - D. Doyen forceps

2. Which instrument would be used for a common duct exploration during open cholecystectomy?
 - A. Foley catheter
 - B. Satinsky clamp
 - C. Bakes dilator
 - D. Brophy forceps

3. An environmental source of contamination is
 - A. airborne dust particles.
 - B. skin.
 - C. hair.
 - D. fomites.

4. Which drape sheet would be used for a laminectomy?
 - A. Perineal sheet
 - B. Laparotomy sheet
 - C. Thyroid sheet
 - D. Extremity sheet

5. When a circulator fastens a sterile gown for a member of the sterile team, he or she will maintain its sterility by
 - A. wearing sterile gloves.
 - B. using germicidal soap on his or her hands before touching the gown.
 - C. touching only those areas of the gown that are considered unsterile.
 - D. fastening the gown in back and then tying the drawstring (belt) in front of the sterile gown.

6. When using an armboard, the most important measure is to
 - A. avoid hyperextension of the arm.
 - B. support the arm at the IV site.
 - C. avoid hypoextension of the arm.
 - D. strap the arm in place.

7. Which of the following instruments would be found on a D and C setup?
 - A. Hegars
 - B. Heaney clamps
 - C. O'Sullivan-O'Connor
 - D. Bakes dilator

8. Another name for the removal of a uterine fibroid is
 - A. Wertheim procedure.
 - B. myomectomy
 - C. McDonald's procedure.
 - D. hysterectomy.

9. When handing drapes to the surgeon, where should the scrub person stand in relation to the surgeon?
 - A. On the opposite side of the OR table from the surgeon
 - B. On the same side of the OR table as the surgeon
 - C. Near the foot of the table

- D. Anywhere, as long as he or she is careful not to contaminate
10. Which of the following procedures would be done in a lateral position?
A. Suprapubic prostatectomy
B. Vaginal hysterectomy
C. Nephrectomy
D. Tonsillectomy
11. When applying surgical drapes,
A. cuff the drape and unfold it away from the operative site.
B. cuff the drape and unfold it toward the operative site.
C. reposition the fenestration if this unfolds at the wrong place.
D. shake the drape so it unfolds quickly.
12. The usual position on the OR table for a patient undergoing kidney surgery is
A. prone position.
B. lateral on the uninvolved side.
C. lateral on the involved side.
D. dorsal recumbent.
13. Which of the following is a nonadherent dressing?
A. Collodion
B. Kling
C. Elastoplast
D. Adaptic
14. In preparation for surgery, skin should be washed and painted
A. from the incision site to the periphery in a circular motion.
B. from the periphery to the incision site in a circular motion.
C. using a back-and-forth motion covering the operative site.
D. according to the individual preference of the circulator.
15. Which solution kills spores and is the best to use to terminally process endoscopic instruments?
A. Quaternary ammonium compounds
B. Phenol compounds
C. Activated glutaraldehyde
D. Ethyl alcohol 70%-90%
16. As part of terminal sterilization after a case, some fluids from the procedure may be
A. emptied in the flush "hopper" or sink.
B. poured into the nearest available sink.
C. poured into the porter's closet sink.
D. sealed in a container and thrown in the garbage.
17. For a patient having thyroid or neck surgery, you should anticipate the use of a
A. head holder.
B. shoulder roll.
C. shoulder brace.
D. pillow for the legs.
18. The position most commonly used for mitral valve replacement is
A. prone.
B. Trendelenburg.
C. supine.
D. Kraske.

19. A Mayfield fixation device might be used for which procedure
- A. hysterectomy.
 - B. craniotomy.
 - C. femoral plating.
 - D. catarac removal.
20. Which position is used for neurosurgical and some otorhinologic procedures?
- A. Kraske
 - B. Fowler
 - C. Lateral
 - D. Lithotomy
21. An anesthetized patient should be moved slowly to
- A. prevent circulatory overload.
 - B. prevent falls.
 - C. allow the cardiovascular system to adjust.
 - D. allow the respiratory system to adjust.
22. When removing gloves at the end of a procedure, the second glove is removed
- A. glove to glove.
 - B. glove to skin.
 - C. skin to skin.
 - D. skin to glove.
23. A curved, tapered surgical needle is used most often on
- A. skin or eye tissues.
 - B. bowel or eye tissues.
 - C. subcutaneous or skin tissues.
 - D. bowel or subcutaneous tissues.
24. When gloving a surgeon,
- A. keep the palms of the glove facing the surgeon.
 - B. avoid contact by keeping your thumbs tucked in.
 - C. hold the second glove while gloving the first hand.
 - D. glove only over a sterile area.
25. Which self-retaining retractor would be used to facilitate exploration of the femoral artery during a femoral-popliteal bypass?
- A. Mason-Judd
 - B. DeBakey
 - C. Weitlaner
 - D. Gelpi
26. A basic bone set contains all of the following except
- A. mallet and chisels.
 - B. periosteal elevators and osteotomes.
 - C. rongeurs and gouges.
 - D. drivers and extractors.
27. You would anticipate the need for fine rake retractors in
- A. meniscus surgery.
 - B. surgery for Dupuytren's contracture.
 - C. Putti-Platt repair.
 - D. hip surgery.

28. What type of drape sheet would be used when draping for an abdominoperineal resection done in the lithotomy position?
- A. Laparotomy sheet
 - B. Split sheet
 - C. Combined sheet
 - D. Transverse sheet
29. When performing an abdominal prep, the umbilicus is
- A. given no special care.
 - B. avoided because it is contaminated.
 - C. prepped last or separately.
 - D. not included in an abdominal prep.
30. Which drape sheet would be used when draping for either vaginal or rectal surgery?
- A. Laparotomy sheet
 - B. Split sheet
 - C. Transverse sheet
 - D. Perineal sheet
31. Which drape sheet would be used when draping for kidney surgery?
- A. Transverse sheet
 - B. Extremity sheet
 - C. Split sheet
 - D. Perineal sheet
32. The power source for all fiberoptic instruments and equipment is
- A. fiberoptic light source.
 - B. surgical loupes.
 - C. pneumatic tourniquet.
 - D. electrosurgical unit.
33. Orthopedic power equipment is run by
- A. nitrogen.
 - B. oxygen.
 - C. nitrous oxide.
 - D. helium.
34. During surgery, the most effective barrier to prevent laser energy from penetrating healthy tissue and/or igniting materials in the area is
- A. isopropyl alcohol.
 - B. water.
 - C. hydrogen peroxide.
 - D. duraprep.
35. In electrocautery use, the inactive electrode
- A. dispenses the current back to the unit.
 - B. is an oscillating low frequency current.
 - C. freezes diseased tissue.
 - D. is placed on tissue by the surgeon.
36. Fine hooks available in varying angles are essential dissecting tools to perform a
- A. myringotomy.
 - B. tonsillectomy.
 - C. stapedectomy.
 - D. tympanotomy.

37. Which position is chosen for the adult patient undergoing a local tonsillectomy?
A. Sims
B. Semi-Fowler
C. Trendelenburg
D. Supine
38. All of the following devices are required for repair of a nasal fracture except
A. bayonet forceps.
B. pillar retractor.
C. speculum.
D. rasp.
39. Which instrument would you need to remove the septal cartilage in a rhinoplasty?
A. Kerrison rongeur
B. Jansen-Middleton forceps
C. Myles curette
D. Caliper
40. Which of the following medications would be used as a topical anesthetic prior to nasal surgery?
A. Codeine
B. Cocaine
C. Xylocaine
D. Pontocaine
41. All of the following instruments can be found on a tonsillectomy setup except a
A. Yankauer suction.
B. pillar retractor.
C. Cottle cartilage holder.
D. palate retractor.
42. All of the following instruments can be found on a nasal setup except a
A. Freer elevator.
B. bayonet forceps.
C. Potts forceps.
D. Cottle speculum.
43. Which technique is not acceptable when draping?
A. Hold the drapes high until directly over the proper area
B. Protect the gloved hand by cuffing the end of the drape over it
C. Unfold the drapes before bringing them to the OR table
D. Place the drapes on a dry area
44. When draping a prep table, the scrub person should drape from
A. back to front.
B. front to back.
C. side to side.
D. either A or B.
45. The skin prep for a breast biopsy is
A. routine.
B. done gently.
C. done vigorously.
D. eliminated.
46. When is a tourniquet utilized?

- A. Only in lower extremity bleeding
 - B. Only when hemorrhage is not controlled by other methods
 - C. In all venous bleeding
 - D. In all arterial bleeding
47. Which is the antiseptic solution of choice in most operating rooms?
- A. Septisol
 - B. hexachlorophene
 - C. povidone-iodine
 - D. Zephiran
48. In the lateral chest position, a sandbag or padding is placed under the chest at axillary level to
- A. aid in position stability.
 - B. prevent pressure on the lower arm.
 - C. create good body alignment.
 - D. add warmth for the patient.
49. In the prone position, the thorax must be elevated from the OR table to prevent
- A. compromised respiration.
 - B. pressure areas.
 - C. circulatory impairment.
 - D. brachial nerve damage.
50. Which position would be used for a patient in hypovolemic shock?
- A. Trendelenburg
 - B. Reverse Trendelenburg
 - C. Supine
 - D. Dorsal recumbent
1. C. Allen forceps, Doyen forceps, and a Best clamp are all instruments used in gastrointestinal surgery. A De Lee forceps is used in obstetric and gynecologic surgery. (Alex 273)
2. C. A set of Bakes common duct dilators is required instrumentation for a common bile duct exploration. (Alex 339)
3. A. An environmental source of contamination is airborne dust particles. (B&K 196)
4. B. A laparotomy drape sheet is used for laminectomy. (Alex 462)
5. C. The circulator maintains a gown's sterility during fastening by touching only those areas that are considered unsterile. (B&K 177)
6. A. When using an armboard in positioning a patient, the armboard must be watched carefully to avoid hyperextending arm or disturbing infusion needle. (B&K 440)
7. A. One set of Hegar dilators are included on a dilatation and curettage set up. (Alex 409)
8. B. A myomectomy is the removal of fibromyomas or fibroid tumors from the uterine wall. (Alex 424)
9. B. When handing drapes to the surgeon, the scrub person should stand on the same side of the OR table as the surgeon to avoid reaching over nonsterile table. (B&K 461)
10. C. In a routine nephrectomy the patient would be positioned in the lateral position. (Alex 537)

11. A. When applying a surgical drape, cuff the drape and unfold it away from the operative site. (B&K 461)
12. B. A patient having kidney surgery is usually placed on the OR table in the lateral position on the uninvolved side. (Alex 530)
13. D. An example of a nonadherent dressing is Adaptic. (Alex 188)
14. A. In preparation for surgery, the skin should be scrubbed starting at the incision site in a circular motion. (B&K 452)
15. C. Activated glutaraldehyde kills spores and it is the best to use to terminally process endoscopic instruments. (B&K 239)
16. A. As part of terminal sterilization after a case, some fluids from the procedure may be emptied into the flush "hopper" or sink. (Alex 67)
17. B. Patients undergoing neck surgery may require a shoulder roll for hyperextension of the neck. (Alex 551)
18. C. The supine position is most commonly used for mitral valve replacement. (Alex 1100)
19. B. The Mayfield head fixation device is one of the commonly used positioning aids in neurosurgery. (Alex 887)
20. B. The Fowler position is used for neurosurgical and some otorhinologic procedures. (Alex 882)
21. C. An anesthetized patient should be moved slowly to allow the cardiovascular system to adjust. (B&K 341)
22. C. After a surgical procedure, the first glove is removed glove to glove; the second glove is removed skin to skin. (Alex 87)
23. D. A curved, tapered surgical needle is used most often in soft tissues such as bowel or subcutaneous tissue. (B&K 499)
24. A. When gloving a surgeon, keep the palms of the glove facing the surgeon. (B&K 179)
25. C. A Weitlaner retaining retractor is used to facilitate exploration of the femoral artery during a femoral-popliteal bypass. (Alex 1046)
26. D. Drivers and extractors are not part of a basic bone set. (Alex 758)
27. B. Fine rake retractors would be used in surgery for Dupuytren's contracture.
28. C. A combined drape sheet is used for an abdominoperineal resection done with the patient in the lithotomy position. (B&K 460)
29. C. The umbilicus is prepped last or separately when performing an abdominal prep. It is an area of the abdomen that is considered contaminated. (B&K 453)
30. D. A perineal drape sheet is used when draping for either vaginal or rectal surgery. It is large enough to establish a sterile field for patients in lithotomy position and accommodates legs being placed in stirrups. (B&K 460)
31. A. A transverse sheet is used when draping for kidney surgery. (B&K 460)

32. A. A fiberoptic light source is the power source for all fiberoptic instruments and equipment. (B&K 280)
33. A. Orthopedic power equipment is run by nitrogen. (B&K 748)
34. B. Water is the most effective barrier to stop laser energy from penetrating healthy tissue and/or igniting materials in the area and should be immediately available. (Alex 1255)
35. A. In electrocautery use, the inactive electrode dispenses the current back to the unit. (B&K 268)
36. C. Fine hooks available in varying angles are essential dissecting tools to perform a stapedectomy. (Alex 657)
37. B. The semi-Fowler position is chosen for adults undergoing a tonsillectomy under local anesthesia. (B&K 739)
38. B. Bayonet forceps, speculum, and rasp are all instruments used for a nasal fracture repair. (Alex 672)
39. B. The septal cartilage may be removed with cutting forceps such as the Jansen-Middleton during a rhinoplasty. (Alex 676)
40. B. Cocaine is usually used as a topical anesthetic prior to nasal surgery. (Alex 672)
41. C. Yankauer suction tube, pillar retractor, and palate retractor are all included on a tonsillectomy setup. (Alex 709-711557)
42. C. A Freer elevator, bayonet forceps, and Cottle speculum are all on a nasal setup. (Alex 672)
43. C. Drapes should be carried to the OR table in a folded condition. (B&K 461)
44. B. When draping a table, the scrub person should drape front to back. (B&K 201)
45. B. The skin prep for a breast biopsy is done gently to avoid freeing cancer cells, if present, that may be carried to other parts of the body. (B&K 453)
46. B. A tourniquet should be used only when hemorrhage cannot be controlled by other methods. (B&K 474)
47. C. Povidone-iodine is an excellent antiseptic. It is nontoxic and nonirritating to skin or mucous membranes, which makes it an antiseptic of choice in most operating rooms. (B&K 452)
48. B. In the lateral chest position, a sandbag or padding is placed under the patient's chest at axillary level to prevent pressure on the lower arm. (B&K 447)
49. A. In the prone position, the thorax must be elevated from the OR table to prevent compromised respiration. (B&K 444)
50. A. A modified Trendelenburg position would be used for a patient in hypovolemic shock. (B&K 443)
51. A. Ulnar nerve damage could result from poor placement of legs in stirrups.

- B. hyperextension of the arm.
 - C. using mattress pads of varying thicknesses.
 - D. placing an arm on an unpadded table edge.
52. Stirrups that are inadequately padded or improperly placed can cause pressure on the
- A. sciatic nerve.
 - B. peroneal nerve.
 - C. tibial nerve.
 - D. gluteal nerve.
53. Extreme positions of the head and arm can cause injury to the
- A. cervical plexus.
 - B. radial nerve.
 - C. ulnar nerve.
 - D. brachial plexus.
54. If the patient is in the supine position, the circulator must always
- A. place a pillow between the knees.
 - B. place a pillow under the knees.
 - C. see that the ankles and legs are not crossed.
 - D. see that the thoracic area is padded adequately.
55. The placement of the patient in the operative position is the responsibility of the
- A. surgeon.
 - B. circulator and first assistant.
 - C. circulator, anesthesiologist, and surgeon.
 - D. circulator and surgeon.
56. The patient is never positioned until the
- A. surgeon gives his or her permission.
 - B. anesthesiologist gives his or her permission.
 - C. scrub person is in the room.
 - D. circulator has finished all the preparatory duties.
57. All of the following are requirements of the Kraske position except
- A. the patient is prone with hips over the break of the table.
 - B. a pillow is placed under lower legs and ankles.
 - C. a padded knee strap is applied 2 inches above the knees.
 - D. the arms are tucked in at the sides.
58. Why is the table straightened before closing a kidney incision?
- A. To facilitate easier respirations
 - B. To create better approximation of tissues
 - C. To facilitate better circulation
 - D. To prevent nerve damage
59. When moving a patient from a lithotomy position,
- A. lower legs together quickly.
 - B. lower legs together slowly.
 - C. lower each leg separately and slowly.
 - D. lower each leg separately and quickly.
60. In positioning for a laminectomy, rolls or bolsters are placed
- A. horizontally, one under the chest and one under the thighs.
 - B. longitudinally to support the chest from axilla to hip.
 - C. longitudinally to support the chest from sternum to hip.

- D. below the knees.
61. Which of the following is not a requirement when a patient is in the prone position?
- A. The safety belt is placed below the knees
 - B. The arms may be on armboards, alongside the body or raised above the head
 - C. The head is turned to the side
 - D. Bolsters are placed under the axillae and alongside the chest
62. In the lateral kidney position
- A. both legs are straight.
 - B. both legs are flexed.
 - C. the lower leg is flexed, the upper leg is straight.
 - D. the lower leg is straight, the upper leg is flexed.
63. Another name for the Kraske position is
- A. prone on an adjustable arch.
 - B. lateral.
 - C. knee-chest.
 - D. jackknife.
64. Which position would be the most desirable for a pilonidal cystectomy or a hemorrhoidectomy?
- A. Lithotomy
 - B. Kraske
 - C. Knee-chest
 - D. Modified prone
65. The lithotomy position requires each of the following except that
- A. the patient's buttocks rest along the break between the body and leg sections of the table
 - B. stirrups are at equal height on both sides of the table.
 - C. stirrups are at the appropriate height for the length of the patient's legs to maintain symmetry.
 - D. each leg is raised slowly and gently as it is grasped by the toes.
66. To prevent strain to the lumbosacral muscles and ligaments when the patient is in the lithotomy position,
- A. the buttocks must not extend beyond the table edge.
 - B. the legs must be placed symmetrically.
 - C. the legs must be at equal height.
 - D. a pillow should be placed under the sacral area.
67. The femoral nerve can be damaged if
- A. the patient in the lithotomy position is not padded properly.
 - B. retractors are used carelessly during pelvic surgery.
 - C. the safety strap is placed too tightly.
 - D. the Mayo stand leans on the patient's feet.
68. A precaution always taken when the patient is in the supine position is to
- A. place pillows under the knees for support.
 - B. place the safety strap 3 to 4 inches below the knees.
 - C. place the head in a headrest.
 - D. protect the heels from pressure on the OR table.
69. The desirable position for better visualization in the lower abdomen or pelvis is
- A. Fowler.
 - B. reverse Trendelenburg.
 - C. Trendelenburg.
 - D. Kraske.

70. The position frequently used in thyroid and gallbladder surgery is
A. supine.
B. Trendelenburg.
C. reverse Trendelenburg.
D. dorsal recumbent.
71. Crossing the patient's arms across his or her chest in the supine position may cause
A. pressure on the ulnar nerve.
B. interference with circulation.
C. postoperative discomfort.
D. interference with respirations.
72. The ultimate responsibility for obtaining surgical consent lies with the
A. operating room supervisor.
B. circulator.
C. surgeon.
D. floor nurse.
73. A general consent form
A. authorizes all treatment or procedures.
B. authorizes treatment for all patients having general anesthesia.
C. authorizes treatment for all patients undergoing hazardous therapy.
D. is another name for operative consent.
74. Jane Doe is scheduled for an appendectomy. After completing this procedure, the surgeon decides to remove a mole from her abdomen while she is still under anesthesia. No permission was obtained for this additional procedure. The circulator should
A. report it to the anesthesiologist.
B. report it to the chief of surgery.
C. report it to the OR supervisor.
D. let the surgeon proceed since it is his or her responsibility to obtain consent.
75. Informed consent means that the patient
A. has been informed about what will be done and gives his or her permission.
B. is of age and mentally capable of signing.
C. signs voluntarily after the procedure, complications, and postoperative course are explained.
D. is protected from unauthorized surgery.
76. A parent, legal guardian, or spouse may sign a consent form in all of the following cases except if the patient
A. is inebriated.
B. is a minor.
C. refuses surgery, but the family knows it is in the patient's best interest.
D. is mentally incompetent.
77. A subcostal incision could be used for a
A. cholecystectomy.
B. splenectomy.
C. pancreatoduodenectomy.
D. all of the above.
78. A curved transverse incision across the lower abdomen used frequently in gynecologic surgery is
A. lower midline.
B. McBurney.
C. Pfannenstiel.
D. paramedian.

79. When draping the patient for a herniorrhaphy, which of the four utility drapes is put down first?
- A. The one away from the scrub person
 - B. The one closest to the scrub person
 - C. The one toward the bottom of the incision
 - D. The one toward the top of the incision
80. Why must you cuff your hands in the drape sheet when opening it to cover the patient?
- A. To maintain control of the sheet
 - B. To protect your hands from contamination
 - C. You do not need to unless anesthesia is about to touch you
 - D. To save time in draping
81. The appendix is usually removed through which incision?
- A. Kocher
 - B. McBurney
 - C. Pfannenstiel
 - D. Paramedian
82. The most common cause of retinal detachment is
- A. trauma.
 - B. aging.
 - C. inflammation.
 - D. glaucoma.
83. A fleshy encroachment of conjunctiva onto the cornea is
- A. pterygium.
 - B. chalazion.
 - C. strabismus.
 - D. ecchymosis.
84. Blockage of the canal of Schlemm or excessive production of aqueous humor will produce
- A. detached retina.
 - B. strabismus.
 - C. glaucoma.
 - D. chalazion.
85. An uneven curvature of the cornea is known as
- A. myopia.
 - B. strabismus.
 - C. astigmatism.
 - D. hvneronia.
86. The procedure of choice for a detached retina is
- A. scleral buckling.
 - B. vitrectomy.
 - C. keratotomy.
 - D. keratoplasty.
87. A nonmalignant enlargement of the prostate and the preoperative diagnosis for a transurethral resection of the prostate (TURP) is
- A. prostatitis.
 - B. benign prostatic hypertrophy.
 - C. balanitis.
 - D. impotence.

88. The high ligation of the gonadal veins of the testes done to reduce venous plexus congestion is a/an
- A. spermatocelectomy.
 - B. varicocelectomy.
 - C. epididymectomy.
 - D. vasovasostomy.
89. Which of the following devices is not a ureteral catheter tip?
- A. Whistle
 - B. Braasch
 - C. Pezzar
 - D. Blasucci
90. Excision of the tunica vaginalis of the testis is called
- A. spermatocelectomy.
 - B. orchiectomy.
 - C. hydrocelectomy.
 - D. vasectomy.
91. The surgical placement and fixation of a testicle in the scrotum is a/an
- A. orchiectomy.
 - B. orchiotomy.
 - C. orchiopexy.
 - D. testicular biopsy.
92. Glisson's capsule refers to
- A. the lateral portion of the spleen.
 - B. the junction of the pancreas and duodenum.
 - C. the external covering of the liver.
 - D. a medication for disease of the pancreas.
93. A procedure performed to establish continuous drainage of fluid from the chest or to aid in restoring negative pressure in the thoracic cavity is known as
- A. open thoracotomy.
 - B. closed thoracostomy.
 - C. thoracoplasty.
 - D. thoracoscopy.
94. A procedure performed in patients with empyema, in which a restrictive, fibrinous membrane is removed or peeled off to prevent pulmonary ventilation restriction, is known as
- A. thoracoplasty.
 - B. sympathectomy.
 - C. pulmonary decortication.
 - D. thoracotomy.
95. Filiforms are used to
- A. dilate the urethra.
 - B. perform an urethrogram.
 - C. mark the ureter.
 - D. drain the ureter.
96. Which organ acts as a blood reservoir?
- A. Gallbladder
 - B. Pancreas
 - C. Spleen
 - D. All of the above

97. Which of the following instruments is considered an appropriate rib approximator?
A. Favaloro
B. Bailey
C. Sauerbruch
D. Lebsche
98. The condition marked by loss of elasticity, thickening, and hardening of the arteries is
A. arteriostenosis.
B. arteriosclerosis.
C. atherosclerosis.
D. atherosclerotic plaque.
99. All of the following are permanent aneurysm clips except
A. Schwartz.
B. Heifitz
C. Sundt-Kees.
D. Scoville.
100. The surgical procedure in which a nerve is freed from binding adhesion for relief of pain and restoration of function is termed a
A. neurexeresis.
B. neurotomy.
C. neurolysis.
D. neurectomy.
51. D. Ulnar nerve damage could result from placing an arm on an unpadded table edge. (B&K 440)
52. B. Stirrups that are inadequately padded or improperly placed can cause pressure on the peroneal nerve. (B&K 441)
53. D. Extreme positions of the head and arm during surgery can cause injury to the brachial plexus. (B&K 439)
54. C. If a patient is in the supine position, the circulator must always see that the ankles and legs are not crossed. (B&K 442)
55. C. The responsibility for placing the patient in the operative position belongs to the circulator, anesthesiologist, and surgeon. (B&K 437)
56. B. The patient is never positioned until the anesthesiologist give his or her permission. (B&K 437)
57. D. In the Kraske (jackknife) position, the patient's arms are extended on angled armboards with elbows flexed and palms down; the patient is prone with hips over the break of the table: a padded knee strap is applied 2 inches above the knees: and a pillow is placed under lower legs and ankles. (B&K 445)
58. B. Before closing a kidney incision, the OR table is straightened to create better approximation of tissues. (B&K 446)
59. B. When moving a patient from a lithotomy position, legs must be lowered together slowly to avoid hypotension. (B&K 444)

60. B. Rolls or bolsters are placed longitudinally to support the chest from axilla to hip in positioning a patient for a laminectomy. (Alex 106)
61. A. When a patient is placed in the prone position, the safety belt is placed above the knees. (B&K 444)
62. C. In the lateral position for kidney surgery, the lower leg is flexed to provide stabilization and the upper leg is straight. (B&K 445)
63. D. Jackknife is another name for the Kraske position. (B&K 445)
64. B. The Kraske position is used for a pilonidal cystectomy or a hemorrhoidectomy. (B&K 445)
65. D. In the lithotomy position, the patient's legs are raised by two people at the same time by the soles of the patient's foot, not the toes. (B&K 444)
66. A. To prevent strain to the lumbosacral muscles and ligaments when the patient is in the lithotomy position, the buttocks must not extend beyond the table edge. (B&K 444)
67. B. The femoral nerve can be damaged if retractors are used carelessly during pelvic surgery. (B&K 439)
68. D. A precaution always taken when the patient is in the supine position is to protect the heels from pressure on the OR table. (B&K 442)
69. C. The Trendelenburg position allows for better visualization in the lower abdomen or pelvis. (B&K 443)
70. C. The reverse Trendelenburg position is frequently used in thyroid and gallbladder surgery. (B&K 443)
71. D. In the supine position, crossing the patient's arms across his or her chest could cause interference with respiration. (B&K 442)
72. C. The surgeon is ultimately responsible for obtaining consent. (B&K 51)
73. A. A general consent form authorizes all treatment or procedures. (B&K 37)
74. C. A surgeon may perform additional surgery when unexpected conditions are met during an authorized surgery. However, if the additional surgery was not consented to or does not play a significant role in the general health problem of the patient, the surgeon's action should be reported to the OR supervisor. (B&K 39)
75. C. Informed consent means that the patient has signed the consent form voluntarily after the procedure, complications, and postoperative course have been explained. (B&K 37)
76. C. A parent, legal guardian, or spouse may not sign a consent form if the patient refuses surgery, even though the family knows the surgery is in the patient's best interest. (B&K 38)
77. D. A subcostal incision would be used for a cholecystectomy, splenectomy, and pancreatoduodenectomy. (Alex 259)
78. C. Pfannestiel's incision is a curved transverse incision across the lower abdomen and used frequently in gynecologic surgery. (B&K 583)

79. B. The utility drape closest to the scrub person is put down first when draping a patient for a herniorrhaphy. (From Principles of Sterile Technique. Drapes are always placed on the side from which the sterile member is working to protect against contamination when passing other drapes.)
80. B. To protect your hands from contamination, you must cuff your hands in the drape sheet when opening it to cover the patient. (B&K 461)
81. B. McBurney incision is primarily used for removal of the appendix. (B&K 583)
82. A. Trauma is the most common cause of retinal detachment. (A&P 481)
83. A. Pterygium is a fleshy encroachment of conjunctiva onto the cornea. (Alex 601)
84. C. Glaucoma is produced by a blockage of the canal of Schlemm or excessive production of aqueous humor. (A&P 473)
85. C. Astigmatism is an uneven curvature of the cornea. (A&P 478)
86. A. Scleral buckling is the surgical procedure used most often to treat a detached retina. (Alex 624)
87. B. Benign prostatic hypertrophy is a nonmalignant enlargement of the prostate and the preoperative diagnosis for a transurethral resection of the prostate (TURP) (Alex 492)
88. B. The high ligation of the gonadal veins of the testes done to reduce venous plexus congestion is a varicocelectomy. (Alex 487)
89. C. Whistle, Braasch, and Blasucci are types of ureteral catheters. (Alex 454)
90. C. Excision of the tunica vaginalis of the testis is called hydrocelectomy. (Alex 485)
91. C. Orchiopexy is the surgical placement and fixation of a testicle in the scrotum. (Alex 490)
92. C. Glisson's capsule is the external covering of the liver and is made of dense connective tissue. (Alex 320)
93. B. A closed thoracostomy involves the placement of one or more chest tubes into the pleural cavity for the removal of blood and/or air. (B&K 790)
94. C. Pulmonary decortication is performed in patients with empyema. It removes fibrinous membrane to prevent pulmonary ventilation restriction. (Alex 1026)
95. A. Filiforms are used dilate the urethra. (Fuller 405)
96. C. The spleen acts as a blood reservoir besides functioning as defense of the body by phagocytosis of microorganisms, formation of nongranular leukocytes and plasma cells, and phagocytosis of damaged red blood cells. (Alex 324)
97. B. Bailey is a type of rib approximator. (Fuller 179)
98. B. Arteriosclerosis is a condition marked by loss of elasticity, thickening, and hardening of the arteries. (Alex 1108)
99. A. Heifitz, Sundt-Kees, and Scoville are types of permanent aneurysm clips. (Alex 901)
100. C. Neurolysis is the freeing of a nerve from surrounding adhesions. (B&K 675)

101. The surgical indication represented by incomplete closure of the vertebral arches in newborns is
- A. hydrocephalus.
 - B. spina bifida.
 - C. encephalocele.
 - D. scoliosis.
102. Surgical interruption of selected posterior spinal nerve roots between the ganglion and the cord is called
- A. cordotomy.
 - B. laminectomy.
 - C. rhizotomy.
 - D. dorsal sympathectomy.
103. A surgical procedure used most frequently to control intractable pain of terminal cancer is called
- A. sympathectomy.
 - B. cordotomy.
 - C. neurectomy.
 - D. Cloward procedure.
104. Michel clips are
- A. skin clips.
 - B. hemostatic clips.
 - C. aneurysm clips.
 - D. galea clips.
105. In which procedure would a Gigli saw be used?
- A. Craniotomy
 - B. Laminectomy
 - C. Cloward procedure
 - D. Rhizotomy
106. Repair of a cranial defect is termed
- A. craniectomy.
 - B. cranioplasty.
 - C. craniosynostosis.
 - D. craniostomy.
107. Removal of an anterior cervical disk with a spinal fusion is termed
- A. Cloward procedure.
 - B. Torkildsen operation.
 - C. Schwartz procedure.
 - D. Sach's procedure.
108. All of the following conditions have indication for burr holes except
- A. abscess.
 - B. arterioventricular (AV) malformation.
 - C. ventriculography.
 - D. shunting procedure.
109. The procedure designed to relieve entrapment syndrome of the median nerve of the wrist is called
- A. carpal tunnel release.
 - B. Colles' release.
 - C. excision of ganglion.
 - D. neurotomy.

110. Plaster rolls for casting should be submerged in
A. very warm water (90-100(F)).
B. cold water (50-60(F)).
C. lukewarm water (70-75(f)).
D. very cold water (30-40(F)).
111. Which of the following procedures is not performed for scoliosis?
A. Luque rods
B. Chemonucleolysis
C. Harrington rods
D. Cotrel Dubousset system
112. The normal setting for the pneumatic tourniquet for an arm is
A. 150 to 250 mm Hg.
B. 250 to 300 mm Hg.
C. 300 to 450 mm Hg.
D. 450 to 550 mm Hg.
113. Which of the following prostheses would be used to correct rheumatoid arthritis of the metacarpal?
A. Neer
B. Mueller
C. Swanson
D. Kennedy
114. A fractured metacarpal would require a
A. long arm cast.
B. short arm cast.
C. cylinder cast.
D. splint.
115. Which of the following terms describes a fracture in which the bone communicates with a break in the skin?
A. Closed
B. Compound
C. Comminuted
D. Complete
116. A Putti-Platt procedure is performed on the
A. shoulder.
B. wrist.
C. knee.
D. elbow.
117. A severely comminuted fracture of the neck of the femur would require a/an
A. intramedullary rodding.
B. hip pinning.
C. hip prosthesis.
D. total hip replacement.
118. A tear in the medial knee cartilage is repaired by performing a/an
A. synovectomy.
B. patellectomy.
C. meniscectomy.
D. ACL repair.
119. A self-retaining neurosurgical retractor that is used in maintaining traction of brain tissue is

- A. Balfour.
 - B. Leyla-Yasargil.
 - C. Weitlaner.
 - D. Leroy Raney.
120. The patient is generally in what position for posterior fossa exploration?
- A. Supine
 - B. Prone
 - C. Sitting
 - D. Lateral
121. Which procedure is used to treat hydrocephalus?
- A. Posterior rhizotomy
 - B. Ventriculoperitoneal shunt
 - C. Cloward procedure
 - D. Sympathectomy
122. Which of the following does not control bleeding in the skin and galea?
- A. Dandy application
 - B. Application of Raney clips
 - C. Thrombin application
 - D. Injection of saline or lidocaine with epinephrine
123. Turner-Warwick needles and retractors and Denis-Browne ring retractors may be used for
- A. hydrocelectomy.
 - B. urethroplasty.
 - C. nephrectomy.
 - D. liver biopsy.
124. Which laser is used to coagulate bleeders during endoscopic procedures?
- A. Neodymium-YAG
 - B. Carbon dioxide
 - C. Helium
 - D. Argon
125. An endoscopic retrograde cholangiopancreatography (ERCP) is done to
- A. visualize the biliary and pancreatic tract.
 - B. remove common duct stones.
 - C. determine pancreatic function.
 - D. assess liver function.
126. Which one of the following must be done prior to cholecystectomy?
- A. Cholangiopancreatography
 - B. X-ray capable OR bed must be obtained
 - C. MRI
 - D. Liver and bone scan
127. Which of the following actions may be taken to facilitate exposure during a thyroidectomy?
- A. Rolled sheet placed under the patient's shoulder
 - B. Patient placed in Trendelenburg
 - C. Ligation of the laryngeal nerve structures
 - D. Rolled towel placed under axilla
128. A nasogastric tube used in the small intestine is a
- A. Salem sump.
 - B. Miller-Abbott.

- C. Malecot.
 - D. red rubber catheter.
129. The treatment of urethral strictures can be accomplished by using
- A. Philips filiforms.
 - B. Van Buren sounds.
 - C. McCarthy dilators.
 - D. all of the above.
130. A Gomco clamp, a Plastibell, or a Hollister device would be used for
- A. circumcision.
 - B. urethral meatotomy.
 - C. hypospadias repair.
 - D. epispadias repair.
131. The use of radio-frequency energy for identifying abnormalities in anatomic structures is known as
- A. positron emission tomography.
 - B. magnetic resonance imaging.
 - C. plethysmography.
 - D. computerized axial tomography.
132. The skin with all its epithelial structures and subcutaneous tissue is destroyed in a
- A. first degree burn.
 - B. second degree burn.
 - C. third degree burn.
 - D. fourth degree burn.
133. Tanks of compressed air or nitrogen must have more than how many pounds of pressure to work properly for air-powered drills, saws, and reamers?
- A. 200 lbs
 - B. 300 lbs
 - C. 400 lbs
 - D. 500 lbs
134. The least inert of all the synthetic meshes is
- A. Marlex mesh.
 - B. Vicryl mesh.
 - C. Mersilene mesh.
 - D. Gortex mesh.
135. A mesh that is not preferred in the presence of infection is
- A. Marlex mesh.
 - B. braided Mersilene mesh.
 - C. Vicryl mesh.
 - D. stainless steel mesh.
136. Endometrial laser ablation is most commonly treated by
- A. argon laser.
 - B. Nd: YAG laser.
 - C. free electron laser.
 - D. carbon dioxide.
137. A Rubin's test is performed to test
- A. patency of fallopian tubes.
 - B. for endometriosis.
 - C. fertility of ovaries.

- D. for cervical carcinoma.
138. A Sengstaken-Blakemore tube is used for
- A. urologic surgery.
 - B. cardiac surgery.
 - C. ruptured esophageal varices.
 - D. peptic ulcers.
139. Omental flaps, falciform ligament, or Gerota's fascia flaps may be used to
- A. repair abdominal defects.
 - B. control liver hemorrhage.
 - C. repair pelvic defects.
 - D. control splenic hemorrhage.
140. A noninvasive test to study blood flow and metabolic functions in the brain and heart is
- A. positron emission tomography (PET).
 - B. magnetic resonance imaging (MRI).
 - C. angiography.
 - D. computerized axial tomography (CAT) scan.
141. Fibrin glue, methyl methacrylate, and butyl cyanoacrylate are examples of
- A. tissue adhesives.
 - B. hemostatic agents.
 - C. synthetic polymers.
 - D. biologic dressings.
142. A stapling device used to perform low anterior anastomosis is
- A. TA 30.
 - B. GIA.
 - C. EEA.
 - D. LDS.
143. Commonly used anesthesia equipment includes a
- A. McGill forceps.
 - B. Miller blade.
 - C. Precordial stethoscope.
 - D. all of the above.
144. The laser light that is absorbed superficially by tissue to a shallow depth is
- A. CO₂ laser.
 - B. argon laser.
 - C. Nd: YAG laser.
 - D. helium.
145. If the surgeon's preference card called for a Bookwalter or Omnitract, you would be using a/an
- A. aortic clamp.
 - B. self-retaining retractor.
 - C. biliary tract instrument.
 - D. stapling device.
146. A Kahn, Calvin, Rubin, Hui, or Humi cannula may be used in which of the following procedures?
- A. Angiography
 - B. Tuboplasty
 - C. Cardiac catheterization
 - D. Ear surgery

147. One of the most extensive of all abdominal procedures is the
A. hepatic resection.
B. cholecystoduodenostomy.
C. pancreatoduodenectomy.
D. anterior resection.
148. A colposcopy may be performed for suspected
A. ectopic pregnancy.
B. dysplasia and/or carcinoma in situ.
C. uterine fibroids.
D. abnormal uterine bleeding.
149. Another name for the uterine dressing forceps found on a D and C tray is the
A. Bozeman.
B. Gaylor.
C. Staude.
D. Sims.
150. The sharp uterine curettes found on a D and C tray are called
A. Gaylor.
B. Thomas.
C. Sims.
D. Bozeman.
101. B. The surgical indication represented by incomplete closure of the vertebral arches in newborns is spina bifida. (B&K 865)
102. C. Surgical interruption of selected posterior spinal nerve roots between the ganglion and the cord is called rhizotomy. (Alex 926)
103. B. Cervical cordotomy is a surgical procedure used most frequently to control intractable pain of terminal cancer. (Alex 926)
104. B. Michel clips are a type of hemostatic clips. (Alex 884)
105. A. A Gigli saw would be used in a craniotomy. It is included in a basic neurologic instrument setup. (Alex 897)
106. B. Cranioplasty is a procedure used to repair a cranial defect. (Alex 916)
107. A. Cloward procedure is used to remove an anterior cervical disk with a spinal fusion. (Alex 927)
108. B. Burr holes may be used to aspirate an abscess, to introduce air into the lateral ventricles for ventriculography, or in procedures for shunting. (Alex 908)
109. A. Carpal tunnel release is a procedure that relieves entrapment syndrome of the median nerve of the wrist. (Alex 785)
110. C. Plaster rolls used in casting should be submerged in lukewarm water of 70-75(F) (B&K 680)
111. B. Luque rods, Harrington rods, and the Cotrel Dubousset system are all procedures used for scoliosis; chemonucleolysis is a procedure used to treat disc disease. (Alex 875)

112. B. The average pressure for a pneumatic tourniquet for an adult arm is 300 mm Hg. (B&K 475)
113. C. A Swanson prosthesis would be used to correct rheumatoid arthritis of the metacarpal. (Alex 883)
114. B. A short arm cast would be used for a fractured metacarpal. (Alex 749)
115. B. A compound fracture is a fracture in which the bone protrudes through the skin. (A&P 198)
116. A. A Putti-Platt procedure is performed on the shoulder. (Alex 776)
117. C. A hip prosthesis would be required for a severely comminuted fracture of the neck of the femur. (Alex 792)
118. C. A meniscectomy is used to repair a tear in the medial knee cartilage. (Alex 839)
119. B. Leyla-Yasargil is a self-retaining neurosurgical retractor that is used to maintain traction of brain tissue. (Alex 891)
120. C. The sitting position is most commonly used for a posterior fossa exploration. (Alex 882)
121. B. Hydrocephalus is treated with a ventriculoperitoneal shunt. (Alex 921)
122. C. Thrombin application does not control bleeding in the skin and galea.
123. B. Turner-Warwick needles and retractors and a Denis-Browne ring retractor may be used for urethroplasty. (Alex 475)
124. A. A neodymium-YAG laser would be used to coagulate bleeders during endoscopic procedures. (Alex 1250)
125. A. An endoscopic retrograde cholangio-pancreatography (ERCP) is performed to visualize the biliary and pancreatic tract. (Alex 324)
126. B. Prior to cholecystectomy, an x-ray capable OR bed must be obtained. (Alex 334)
127. A. To facilitate exposure during a thyroidectomy, a rolled sheet or inflatable pillow is placed under the patient's shoulder. (Alex 556)
128. B. A nasogastric tube used in the small intestine is a Miller-Abbot. (B&K 527)
129. D. Philips filiforms, Van Buren sounds, and McCarthy dilators are all used in the treatment of urethral strictures. (Alex 467)
130. A. A circumcision instrument setup may include a Gomco clamp, a Plastibel device, or a Hollister device. (Alex 466)
131. B. Magnetic resonance imaging (MRI) is the use of radio-frequency energy for identifying abnormalities in anatomic structures. (B&K 561)
132. C. The skin along with all its epithelial structures and subcutaneous tissue is destroyed in a third-degree burn. (B&K 721)
133. D. Tanks of compressed air or nitrogen must have more than 500 pounds of pressure to work properly for air-powered drills, saws, and reamers. (B&K 262)
134. C. Mersilene mesh is the least inert of the synthetic meshes. (B&K 508)

135. B. Braided Mersilene mesh is not preferred in the presence of infection because of its multifilament construction. (B&K 508)
136. B. The Nd:YAG laser is used to destroy the endometrium in endometrial laser ablation. (B&K 613)
137. A. The patency of the fallopian tubes is tested with Rubin's test. (B&K 612)
138. C. A Sengstaken-Blakemore tube is used to control bleeding in a patient with esophageal varices. (B&K 591)
139. B. Liver hemorrhage may be controlled with the use of omental flaps, falciform ligament, or Gerota's fascia flaps. (B&K 588)
140. A. Positron emission tomography (PET) is a noninvasive test used to study blood flow and metabolic functions in the brain and heart. (B&K 561)
141. A. Fibrin glue, methyl methacrylate, and butyl cyanoacrylate are examples of tissue adhesives. (B&K 507)
142. C. EEA is a stapling device used to perform low anterior anastomosis. (Alex 299)
143. D. McGill forceps, Miller blades, and a precordial stethoscope are all common examples of anesthesia equipment. (Alex 158)
144. A. The CO2 laser light is absorbed superficially by tissue to a shallow depth. (Alex 1249)
145. B. Examples of a self-retaining retractor are Bookwalter or Omnitract. (Alex 329)
146. B. Kahn, Calvin, Rubin, Hui, or Humi cannulae may be used in a tuboplasty. (Alex 434)
147. C. A pancreaticoduodenectomy (Whipple's operation) is one of the most extensive of all abdominal procedures. (Alex 345)
148. B. A colposcopy is performed for suspected dysplasia and/or carcinoma in situ. (Alex 612)
149. A. Bozeman forceps are uterine dressing forceps found on a D and C tray. (Alex 409)
150. C. Sims curettes are sharp uterine curettes found on a D and C tray. (Alex 409)
151. Which of the following devices are self-retaining retractors used for abdominal gynecologic procedures?
A. O'Sullivan-O'Connor
B. Martin
C. Balfour
D. All of the above
152. A Hulka forceps may be used during a
A. laparoscopy.
B. laparotomy.
C. hysteroscopy.
D. pelviscopy.
153. A surgical procedure in which a joint is fused to prevent movement is called an
A. arthrodesis.

- B. arthropey.
- C. arthroplasty.
- D. arthroscopy.

154. Which of the following conditions is a congenital defect in which the fetal vessel that shunts blood from the pulmonary artery to the aorta does not close?

- A. Coarctation of the aorta
- B. Patent ductus arteriosus
- C. Tetralogy of Fallot
- D. Arteriovenous malformation

155. Female urethral dilation may be performed with a

- A. Bakes dilators.
- B. Hegar dilators.
- C. McCarthy dilators.
- D. Jackson dilators.

156. A calibration catheter is used to measure the

- A. diameter of the coronary vessels.
- B. length of the prostatic urethra.
- C. intraocular pressure.
- D. spinal fluid.

157. Endoscopic suspension of the vesical neck for stress incontinence is known as a

- A. Stamey procedure.
- B. retropubic urethrovesical suspension.
- C. vesicourethral suspension.
- D. Marshall-Marchetti.

158. Satinsky, Herrick, and Mayo clamps can be used on the

- A. thyroid.
- B. bowel.
- C. kidney pedicle.
- D. ovarian ligament.

159. Anesthesia of choice for extracorporeal shock wave lithotripsy is

- A. epidural.
- B. spinal.
- C. general.
- D. local.

160. Which of the following procedures is done to correct recurrent lateral patellar dislocation?

- A. Bankart
- B. Hauser
- C. Keller
- D. Baker

161. A patient experiencing transient cerebral ischemia, asymptomatic bruits, and/or chronic cerebral ischemia may need a

- A. carotid embolectomy.
- B. carotid endarterectomy.
- C. Warren shunt.
- D. VP shunt.

162. The most common congenital anomaly in the cyanotic group is

- A. patent ducts arteriosus.

- B. tetralogy of Fallot.
 - C. coarctation of the aorta.
 - D. Waterston procedure.
163. A noninvasive diagnostic test to assess the movement of blood through a vessel is a/an
- A. arteriogram.
 - B. cardiac catheterization.
 - C. Doppler device.
 - D. angiogram.
164. For a direct arterial pressure reading in a cardiac catheterization, the catheter is inserted into the
- A. brachial artery.
 - B. radial artery.
 - C. subclavian artery.
 - D. ulnar artery.
165. A Jackson aspirating forceps would be used for a
- A. bronchoscopy.
 - B. mediastinoscopy.
 - C. thoracoscopy.
 - D. esophagoscopy.
166. A procedure performed for removal of small, peripherally located benign primary lung tumors is known as a
- A. segmental resection.
 - B. lung biopsy.
 - C. wedge resection.
 - D. lobe resection.
167. Central venous pressure measures
- A. right heart preload.
 - B. left heart preload.
 - C. the ability of the ventricle to pump.
 - D. chamber pressure.
168. In the lateral position for a thoracotomy, the patient's bottom leg is positioned
- A. taped to the table.
 - B. flexed.
 - C. under a pillow.
 - D. on a pillow.
169. A procedure performed in patients with facial nerve damage is known as
- A. hypoglossal facial nerve anastomosis.
 - B. rhytidectomy.
 - C. peripheral neurectomy.
 - D. sympathectomy.
170. A Stamey procedure may be performed for
- A. malignancy.
 - B. fistulas.
 - C. stress incontinence.
 - D. fibroids.

171. A procedure performed to overcome contracture of the bladder neck caused by primary or secondary stricture is a
- A. Marshall-Marchetti.
 - B. Y-V-plasty.
 - C. cystostomy.
 - D. prostatectomy.
172. A diagnostic procedure performed for patients for whom prostatic cancer is suspected is known as a
- A. prostatic needle biopsy.
 - B. transurethral resection.
 - C. prostatectomy.
 - D. cystostomy.
173. The procedure in which the attenuated anterior capsule is reattached to the rim of the glenoid fossa with heavy sutures is known as a/an
- A. Bristow procedure.
 - B. ACL repair.
 - C. Bankart procedure.
 - D. McBride procedure.
174. A Keller arthroplasty, metatarsal osteotomy, or a McBride procedure are all performed to treat
- A. fractures.
 - B. arthritis.
 - C. bunions.
 - D. carpal tunnel syndrome.
175. The freeing of the ulnar nerve from its groove at the back of the medial condyle of the humerus and bringing it to the front of the condyle is known as
- A. carpal tunnel release.
 - B. transposition of the ulnar nerve.
 - C. synovectomy.
 - D. neurolysis.
176. Which position has a potential complication of air embolism?
- A. Knee-chest position
 - B. Kraske position
 - C. Prone position
 - D. Sitting position
177. A diagnostic procedure for suspected ectopic pregnancy is a
- A. culdocentesis.
 - B. colposcopy.
 - C. culdotomy.
178. Which procedure would be performed for decompression of the cecum due to colonic obstruction?
- A. Gastrostomy
 - B. Colostomy
 - C. Cecostomy
 - D. Ileostomy
179. Pancreaticojejunostomy may be performed for
- A. pain and pseudocysts of the pancreas.
 - B. carcinoma of the cecum.
 - C. hepatitis.
 - D. common bile duct carcinoma.

180. Which of the following incisions would be used for a splenectomy?
- A. Left rectus paramedian
 - B. Midline
 - C. Subcostal
 - D. All of the above
181. Patients with hypersplenism may require a
- A. hepatic resection.
 - B. splenectomy.
 - C. pancreatectomy.
 - D. cholecystectomy.
182. A Silverman biopsy needle would be used for a
- A. lung biopsy.
 - B. uterine biopsy.
 - C. liver biopsy.
 - D. muscle biopsy.
183. A cholelithotripsy is performed with
- A. high-energy shock waves.
 - B. x-rays.
 - C. laser.
 - D. none of the above.
184. Choledochostomy is performed to
- A. visualize the common bile duct.
 - B. drain the common bile duct.
 - C. excise the common bile duct.
 - D. bypass the common bile duct.
185. Abdominal laparoscopy may be indicated for
- A. lysis of adhesions.
 - B. wedge resections.
 - C. ablation of liver tumors.
 - D. all of the above.
186. Resection of the sigmoid colon can be accomplished through
- A. paramedian incision.
 - B. upper quadrant oblique incision.
 - C. midabdominal transverse incision.
 - D. Pfannenstiel's incision.
187. A thoracoabdominal incision may be used for
- A. partial gastrectomy.
 - B. hiatal hernia repair.
 - C. pancreatic procedures.
 - D. cholecystectomy.
188. In the prone position, which nerve could be compressed against the humerus?
- A. Radial
 - B. Peroneal
 - C. Tibial
 - D. Sural
189. A subcutaneous mastectomy may be performed for
- A. chronic cystic mastitis.

- B. malignancy with lymph node involvement.
 - C. malignancy without lymph node involvement.
 - D. abscess.
190. Which of the following retractors would be used during a cholecystectomy?
- A. Gelpi
 - B. Harrington
 - C. Green
 - D. Senn
191. Which of the following instruments would be used for a mastectomy?
- A. Berens retractor
 - B. Harrington retractor
 - C. Allen clamp
 - D. Bakes dilator
192. To be effective in killing microorganisms, steam sterilization requires specific
- A. temperatures and pressures.
 - B. temperatures and times.
 - C. times and pressures.
 - D. time and moisture.
193. To prevent contamination of the air in each operating room from surrounding areas (scrub areas, corridors) the air pressure in the operating room should be
- A. variable.
 - B. equal.
 - C. negative.
 - D. positive.
194. The choice position for an operation is determined by the
- A. anesthesiologist.
 - B. surgeon.
 - C. circulator.
 - D. scrub person.
195. When positioning an anesthetized patient, supporting the head is the responsibility of the
- A. circulator.
 - B. assistant.
 - C. anesthesiologist.
 - D. surgeon.
196. When moving a patient with an unsplinted fracture, protecting the fracture is the responsibility of the
- A. surgeon.
 - B. anesthesiologist.
 - C. circulator.
 - D. scrub person.
197. A reverse Trendelenburg position would not be used for operations on the
- A. gallbladder.
 - B. pelvis or lower abdomen.
 - C. thyroid.
 - D. shoulder.
198. A reverse Trendelenburg position requires the added table attachment of a/an
- A. restraint strap.
 - B. Wilson frame.

- C. armboard.
- D. footboard.

199. When placing a patient in the lithotomy position, all of the following steps must be taken except
- A. legs are raised and lowered rapidly.
 - B. legs are raised simultaneously.
 - C. hips are externally rotated.
 - D. armboard angle is less than 90 degrees.

200. Linen drapes have the advantage of being
- A. lint free.
 - B. waterproof.
 - C. supple, lie smoothly.
 - D. easily processed.

151. D. Balfour, Martin, and O'Sullivan-O'Connor self-retaining retractors are used for abdominal gynecologic procedures. (Fuller 355)

152. A. Hulka forceps are usually included in a setup for a laparoscopy. (Alex 418)

153. A. Arthrodesis is a surgical procedure in which a joint is fused to prevent movement. (Alex 811)

154. B. Patent ductus arteriosus is a congenital defect in which the fetal vessel that shunts blood from the pulmonary artery to the aorta does not close. (Alex 1185)

155. C. Female urethral dilation may be performed with McCarthy dilators. (Alex 467)

156. B. A calibration catheter measures the length of the prostatic urethra.

157. A. Stamey procedure is the endoscopic suspension of the vesical neck for stress incontinence. (B&K 646)

158. C. Satinsky, Herrick, and Mayo clamps are used on a kidney pedicle. (Alex 537)

159. A. An epidural is the anesthesia of choice for extracorporeal shock wave lithotripsy. (Alex 535)

160. B. The Hauser procedure is performed to correct recurrent lateral patellar dislocation. (Camp 466-468)

161. B. Indications for a carotid endarterectomy include transient cerebral ischemia, asymptomatic bruits, and/or chronic cerebral ischemia. (Alex 1050)

162. B. Tetralogy of Fallot is the most common congenital anomaly in the cyanotic group. (Alex 1177)

163. C. A Doppler device measures the movement of blood through a vessel using ultrasonic high-frequency sound waves. (Alex 1042)

164. B. For a direct arterial pressure reading in a cardiac catheterization, the catheter is inserted into the radial artery. (B&K 370)

165. A. A Jackson aspirating forceps would be used for a bronchoscopy. (Alex 1007)

166. C. A wedge resection is the removal of small, peripherally located benign primary lung tumors. (Alex 1024)
167. A. Central venous pressure (CVP) measures right heart preload. (B&K 371)
168. B. A patient's bottom leg is positioned flexed in the lateral position for a thoracotomy. (Alex 108)
169. A. Hypoglossal facial nerve anastomosis is performed in patients with facial nerve damage. (Alex 933)
170. C. A Stamey procedure may be performed for stress incontinence. (B&K 646)
171. B. A Y-V plasty is performed to overcome contracture of the bladder neck caused by primary or secondary stricture. (Alex 518)
172. A. A prostatic needle biopsy is a diagnostic procedure performed when prostatic cancer is suspected. (Alex 492)
173. C. The attenuated anterior capsule is reattached to the rim of the glenoid fossa with heavy sutures in the Bankart procedure. (Alex 775)
174. C. Possible treatments for bunions include a Keller arthroplasty, metatarsal osteotomy, and a McBride procedure. (B&K 675)
175. B. The freeing of the ulnar nerve from its groove at the back of the medial condyle of the humerus and bringing it to the front of the condyle is transposition of the ulnar nerve. (Alex 782)
176. D. A potential complication of the sitting position is an air embolism. (Alex 105)
177. A. Culdocentesis is a diagnostic procedure performed for suspected ectopic pregnancy, intraperitoneal bleeding, or tuboovarian abscess. (B&K 612)
178. C. A cecostomy would be performed for decompression of the cecum due to colonic obstruction. (B&K 597)
179. A. To relieve pain as a result of chronic alcoholic pancreatitis and pseudocysts of the pancreas, a pancreaticojejunostomy may be performed. (B&K 589)
180. D. A left rectus paramedian, midline, and subcostal are all examples of incisions used for a splenectomy. (B&K 588)
181. B. Patients with hypersplenism may require a splenectomy. (B&K 588)
182. C. A Silverman biopsy needle would be used for a liver biopsy. (B&K 587)
183. A. High-energy shock waves are used in a cholelithotripsy to break up cholesterol gallstones. (B&K 587)
184. B. Choledochotomy drains the common bile duct. (B&K 587)
185. D. Lysis of adhesions, wedge resection, and ablation of liver tumors are all indications for abdominal laparoscopy. (B&K 584)
186. A. A paramedian incision is used for a resection of the sigmoid colon. (B&K 582)

187. B. A thoracoabdominal incision is used for a hiatal hernia repair. (B&K 583)
188. A. In the prone position, the radial nerve could be compressed against the humerus if the forearm hangs over the side of the bed. (Alex 106)
189. A. A subcutaneous mastectomy (adenomammectomy) may be performed for chronic cystic mastitis. (B&K 580)
190. B. A Harrington retractor is used during a cholecystectomy. (Alex 332)
191. A. A Berens retractor is used for a mastectomy. (Alex 566)
192. B. To be effective in killing microorganisms, steam sterilization requires specific temperatures and times. (B&K 212)
193. D. To prevent contamination of the air in each operating room from surrounding areas the air pressure in the operating room should be positive. (B&K 134)
194. B. The choice position for an operation is determined by the surgeon. (B&K 437)
195. C. Supporting the head is the responsibility of the anesthesiologist when positioning an anesthetized patient. (B&K 438)
196. A. The surgeon is responsible for protecting the fracture of a patient with an unsplinted fracture. (B&K 443)
197. B. The reverse Trendelenburg position is not used for procedures on the pelvis or lower abdomen because it allows gravity to move the contents of the abdomen into the pelvic region. (B&K 443)
198. D. Reverse Trendelenburg position requires an addition of a footboard. (Fuller 92)
199. A. When placing a patient in the lithotomy position, the following steps must be taken: legs are raised simultaneously, hips are externally rotated, and an armboard is used at a less than a 90-degree angle. (B&K 444)
200. C. Linen drapes are supple and lie smoothly. (Fuller 104)
201. Precautions to be followed when drying one's hands and arms after scrubbing include the following steps except to
- A. vigorously dry hands and arms with up and down motion.
 - B. fold the towel lengthwise.
 - C. use opposite ends of towel for each hand/arm
 - D. not allow towel to contact scrub suit.
202. A biopsy punch is an instrument that
- A. grasps and clamps.
 - B. retracts.
 - C. probes and dilates.
 - D. cuts and dissects.
203. When performing a preoperative shave prep, all the following steps should be taken except

- A. shave hair against the direction of growth.
 - B. shave no sooner than 2 hours before surgery.
 - C. wet and lather area.
 - D. rinse and dry area.
204. The antiseptic that must be thoroughly dried before using electrocautery or laser surgery is
- A. alcohol.
 - B. hexachlorophene.
 - C. povidone-iodine.
 - D. triclosan.
205. Which of the following steps is not correct when placing a sterile drape?
- A. Do not flip, fan, or shake drapes
 - B. If the end of the drape falls below waist level, retrieve as long as it has not touched the floor
 - C. Protect the gown by distance and gloved hands
 - D. Handle sterile drapes as little as possible
206. What chemical is used for gas sterilization?
- A. Glutaraldehyde
 - B. Carbon dioxide
 - C. Ethylene oxide
 - D. Halogen
207. How many strokes are taken when the fingertips are scrubbed during an anatomic counted brush stroke method?
- A. 10
 - B. 20
 - C. 25
 - D. 30
208. A small pad placed under a patient's head in the supine position allows which muscles to relax?
- A. Deltoid
 - B. Pyramidal
 - C. Strap
 - D. Cremaster
209. What is the first step to take for an incorrect count?
- A. Notify surgeon
 - B. Call for an x-ray
 - C. Repeat count immediately
 - D. Nothing because there is another count to be done
210. What position allows the best approach to the retroperitoneal area of the flank?
- A. Supine
 - B. Lateral kidney position
 - C. Trendelenburg
 - D. Prone
211. How often are tourniquets typically deflated during surgery?
- A. Every 30 minutes
 - B. Every hour for several minutes
 - C. Every 2 hours for several minutes
 - D. Every 3 hours for several minutes
212. Which agency requires a record be kept of each operation?
- A. Food and Drug Administration (FDA)

- B. Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
- C. Institute of Medicine (IOM)
- D. Association for the Advancement of Medical Instrumentation (AAMI)

213. What is the standard number of times all medications must be checked before administration? (Response is not limited to scrub role but a general situation.)

- A. One
- B. Two
- C. Three
- D. Four

214. What is another name for electrosurgical unit grounding pad?

- A. Surgical pencil
- B. Foot switch
- C. Active electrode
- D. Dispersive (or inactive) electrode

215. In the modern operating room, which of the following steps has been eliminated?

- A. Dirty case rituals
- B. Terminal cleaning
- C. Wet vacuuming
- D. Cleaning between cases

216. What is the reinfusion of a patient's own blood called?

- A. Allograft
- B. Autotransfusion
- C. Hyperthermia
- D. Extracorporeal circulation

217. What should be done when an incorrectly numbered package of sponges is dispersed to the OR field?

- A. Hand off the field and isolate
- B. Use as is, recording the actual number
- C. Place on back table and do not use
- D. Subtract or add sponges to make package equal to others

218. Which of the following should be in every surgical suite?

- A. Blood warmer
- B. Laser
- C. Emergency signal system
- D. Hyperthermia machine

219. Which of the following disinfectants kills spores?

- A. Low-level
- B. Mid-level
- C. Intermediate-level
- D. High-level

220. Which of the following microorganisms possess the least resistance to prepping solutions?

- A. Tubercle bacilli
- B. Spores
- C. Vegetative
- D. Antibiotic resistant staphylococci

221. Which of the following solutions is an active germicide against tubercle bacilli but is not sporicidal?

- A. Alcohol
- B. Methylate

- C. 2% Glutaraldehyde
 - D. Quaternary ammonium compound
222. In the lithotomy position the lower leg should be free from pressure against leg holders to prevent pressure on the
- A. splanchnic nerve.
 - B. trochlear nerve.
 - C. vertebral nerve.
 - D. peroneal nerve.
223. What is the name of the instrument part located between the boxlock and finger rings?
- A. Shank
 - B. Ratchet
 - C. Jaw
 - D. Carbide insert
224. Which of the following devices is a self-retaining retractor?
- A. Murphy
 - B. Goulet
 - C. Gelpi
 - D. Parker
225. Which of the following positions is used for a cesarean section patient before delivery?
- A. Supine and slightly tilted to the left
 - B. Supine and slightly tilted to the right
 - C. Lithotomy and slightly tilted to the left
 - D. Trendelenburg and slightly tilted to the right
226. Which of the following statements is not true of the lithotomy position?
- A. Stirrups are adjusted at equal height
 - B. Buttocks even with table
 - C. Canvas sling encircles the ankle only
 - D. Legs raised simultaneously by two people
227. Which draping technique is not correct?
- A. Drape from sterile area to unsterile area
 - B. Stand close to OR table before draping
 - C. Drape incisional area first
 - D. Drape nearest you first
228. A patient's arm should be positioned at less than a 90 degree angle to prevent damage to the
- A. brachial plexus.
 - B. peroneal nerve.
 - C. sural nerve.
 - D. femoral nerve.
229. Which of the following units does the operating microscope employ for illumination?
- A. Resolving power
 - B. Light waves
 - C. Magnifying power
 - D. Binocular oculars
230. Which of the following illumination device consists of a coaxial illuminator for the operating microscope?
- A. Liquid light
 - B. Tungsten bulb
 - C. Halogen bulb

- D. Fiberoptic light
231. What item would be used in positioning a patient for a thyroidectomy?
A. Shoulder bridge
B. Chest rolls
C. Stirrups
D. Axillary roll
232. Which of the following actions is not a duty of the scrub person during microsurgery?
A. Wipe debris firmly from tips of instruments
B. Place instruments on Mayo stand in anticipated order of use
C. Keep hands out of operative field
D. During set up of Mayo, do not touch tips of instruments
233. Which of the following procedures is not correct when handling powered instruments?
A. Keep safety mechanism in position until ready to use
B. Inspect hose or cords for damage
C. Keep with other instruments on Mayo stand
D. Drip saline solution on area from bulb syringe when using electric-powered instrument
234. What nerve could be damaged when the patient is placed in the Fowler position?
A. Sciatic
B. Brachial plexus
C. Femoral
D. Ulnar
235. Which procedure should not be practiced by the scrub person?
A. Not touching suction tip hanging below table level
B. Sitting only when procedure is performed at this level
C. Self-gowning and gloving from instrument table
D. Not leaning on sterile tables
201. A. When drying hands and arms after scrubbing, arms should be dried using a blotting rotating motion. (Fuller 71)
202. D. A biopsy punch is used for cutting and dissecting. (Fuller 158)
203. A. In a preoperative shave, shave the hair in the direction of growth. (Fuller 100)
204. A. When using alcohol as an antiseptic in electrocautery or laser surgery, it must be completely dry before starting the procedure. (Fuller 102)
205. B. If the end of a drape falls below waist level, it should not be retrieved because the area below the waist is considered unsterile. (Alex 87)
206. C. Ethylene oxide is the chemical used for gas sterilization. (Alex 65)
207. D. When using an anatomic counted brush stroke method during a surgical scrub, the number of strokes at the fingertips is 30. (Alex 79)
208. C. Placement of a small pad under a patient's head in the supine position allows the strap muscle to relax and avoids neck strain. (Alex 100)

209. C. An incorrect count should be repeated immediately. (Alex 32)
210. B. The lateral kidney position allows for the best approach to the retroperitoneal area of the flank. (Alex 110)
211. C. Tourniquets are usually deflated every 2 hours during surgery. The preferred situation is to not reach the two hour point.
212. B. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requires that a record be kept of each surgical procedure.
213. C. All medications must be checked three times before administration. Note that this is a general situation and focused on the circulator's role. (Alex 24)
214. D. Another name for the electrosurgical unit ground pad is the dispersive (or inactive) electrode. (Alex 25)
215. A. "Dirty case" rituals have been eliminated from the modern day operating room. (Alex 92)
216. B. Autotransfusion is the reinfusion of a patient's own blood. (Alex 1226)
217. A. If an incorrectly numbered package of sponges is dispersed in the OR field, it should be handed off the field, marked as not included in the count, and placed in an isolated area. (Alex 31)
218. C. Every surgical suite should have an emergency signal system. (Alex 32)
219. D. High-level disinfectants are effective in killing spores. (Alex 69)
220. C. Vegetative microorganisms possess the least resistance to disinfectants. (Alex 68)
221. A. Alcohol is an active germicide against tubercle bacilli but is not sporicidal. (Alex 70)
222. D. In the lithotomy position, the patient's lower leg should be free from pressure against leg holders to prevent pressure on the peroneal nerve. (Alex 105)
223. A. The shank is located between the boxlock and finger rings of an instrument. (Fuller 159)
224. C. Gelpi is a self-retaining retractor. (Fuller 162)
225. A. The supine (dorsal recumbent) position and slightly tilted to the left is used for a cesarean section patient before delivery. This prevents excessive pressure on the inferior vena cava before delivery. (Alex 439)
226. C. In a lithotomy position, one loop of the canvas sling encircles the sole of the foot; the other loop encircles the ankle. (B&K 444)
227. B. Correct draping technique would be to drape from sterile area to unsterile area, drape incisional area first, and drape nearest first. (B&K 461)
228. A. A patient's arm should be positioned at less than a 90degree angle to prevent damage to the brachial plexus. (B&K 439)
229. B. The operating microscope employs light waves for illumination. (B&K 288)
230. D. The fiberoptic light consists of a coaxial illuminator for the operating microscope. (B&K 288)

231. A. A shoulder bridge is used in positioning a patient for a thyroidectomy. (B&K 440)
232. A. The scrub person places instruments on Mayo stand in anticipated order of use, keeps hands out of operative field, and does not touch tips of instruments during set up of Mayo. (B&K 294)
233. C. Powered instruments should be kept on a table, alone, to prevent inadvertent use. (B&K 262)
234. A. The sciatic nerve could be damaged when a patient is placed in Fowler's position. (Alex 105)
235. C. Self-gowning from the instrument table should not be practiced by the scrub person. (B&K 200)

Category III 1-251 Intra op & Post-op

1. Surgery done for a lower sigmoid or rectal malignancy that requires both an abdominal and rectal incision and in which an anastomosis is not possible is called a/an
 - A. Whipple's operation.
 - B. abdominoperineal resection.
 - C. Wertheim operation.
 - D. anterior resection.

2. The suture sequence for an intestinal anastomosis (classical style) is
 - A. chromic, silk, chromic, silk.
 - B. chromic, chromic, silk, silk.
 - C. silk, chromic, chromic, silk.
 - D. silk, silk, chromic, chromic.

3. Another name for a partial gastrectomy is
 - A. Billroth I operation,
 - B. Whipple operation.
 - C. Wertheim operation.
 - D. hepatic resection.

4. At the completion of the intestinal anastomosis, prior to closing, the instruments used
 - A. should be placed back on the Mayo stand.
 - B. should be discarded in a separate basin away from other instruments.
 - C. should be placed into the instrument pan on the back table.
 - D. should be rinsed with antibiotic solution.

5. A vagotomy usually accompanies what other procedure?
 - A. Pyloroplasty
 - b. Gastrectomy
 - C. Ileostomy
 - D. colostomy

6. Total colectomy would result in the formation of a/an
 - A. ileostomy.
 - B. colostomy.
 - C. sigmoidoscopy.
 - D. colectomy.

7. Another name for Whipple's operation is
 - A. transduodenal sphincterotomy.
 - B. pancreatectomy.
 - C. pancreatoduodenectomy.
 - D. hepatic resection.

8. Which of the following procedures would be done to correct pyloric stenosis in the newborn?
 - A. Ramstedt-Fredet operation
 - B. Heller procedure
 - C. Gomez procedure
 - D. Vagotomy

9. The most common indication for splenectomy is
 - A. trauma.
 - B. splenic anemia.
 - C. hemolytic jaundice.

- D. aplastic anemia.
10. During cholecystectomy, it is sometimes necessary to provide gentle traction to the gallbladder. This is accomplished with
- mixer.
 - Deaver retractor.
 - Kitner dissectors.
 - Pean forceps.
11. Why is a purse-string suture placed in the cecal serosa during an appendectomy?
- To invert the stump of the appendix
 - To close the appendiceal base
 - To control bleeding
 - To prevent hemorrhage
12. A Heller procedure performed to relieve esophageal obstruction is a/an
- vagotomy.
 - Billroth I operation.
 - esophagomyotomy.
 - pyloroplasty.
13. What position is a patient placed in following a tonsillectomy and adenoidectomy?
- On one side, horizontally
 - On the back with head elevated
 - On the back with head lowered
 - On one side with head lowered
14. Which of the following procedures would be used to correct a major rotator cuff tear?
- Bankart
 - Putti-Platt
 - Keeler
 - McBride
15. Blunt dissection during cholecystectomy is accomplished by using
- peanut sponges.
 - Metzenbaum scissors.
 - laparotomy sponges.
 - no. 7 knife handle with no. 15 blade.
16. An accumulation of squamous epithelium that forms an encrusted mass destructive to the middle ear is
- otosclerosis.
 - otitis media.
 - cholesteatoma.
 - serous drainage.
17. The incision for a Caldwell-Luc procedure involves the
- canine fossa of the upper jaw.
 - frontal sinus.
 - eyebrow.
 - tear duct.
18. Removal of tissue at the roof of the nasopharynx and above the soft palate to facilitate breathing and to prevent recurrent attacks of otitis media is a/an
- adenoidectomy.
 - tonsillectomy.

- C. turbinectomy.
D. parotidectomy.
19. Surgical correction of a deviated septum is a/ an
A. antrostomy.
B. septoplasty.
C. rhinoplasty.
D. turbinectomy.
20. The correct instrument used in rhinoplasty to remove the septal cartilage and deformity is the
A. Kerrison rongeur.
B. Jansen-Middleton forceps.
C. Myles curette.
D. Aufrecht glabellar rasp.
21. A cosmetic procedure done to correct protruding ears is
A. tympanoplasty.
B. otoplasty.
C. blepharoplasty.
D. mentoplasty.
22. Which of the following casts would be used for a greenstick fracture of the forearm?
A. Hanging cast
B. Hip spica cast
C. Cylinder cast
D. Shoulder spica cast
23. Glossectomy is removal of the
A. tongue.
B. lips.
C. gum tissue.
D. soft palate.
24. Which of the following sutures generally would not be used in the presence of infection?
A. Silk
B. Chromic
C. Steel
D. Polypropylene
25. The measure of weight required to break a suture is its
A. yield power.
B. tensile strength.
C. gauge.
D. taut test.
26. Which type of needle point would be selected for use on tendon or skin?
A. Taper
B. Cutting
C. Blunt
D. Disposable
27. The type of needle point used on peritoneum and intestine is
A. taper.
B. blunt.
C. trocar.

- D. side cutting.
28. A type of suture that has high tensile strength and supports a wound indefinitely is
- A. silk.
 - B. stainless steel.
 - C. polyester fiber.
 - D. dacron.
29. A stick tie is a/an
- A. free tie.
 - B. continuous suture.
 - C. suture on a needle.
 - D. interrupted suture.
30. A surgical procedure performed to treat acute otitis media is
- A. myringotomy.
 - B. stapedectomy.
 - C. stapes mobilization.
 - D. tympanoplasty.
31. When doing the final count, in which of the following areas are sponges first counted?
- A. Kick bucket
 - B. Operative field
 - C. Back table
 - D. Floor
32. A characteristic of polyglycolic acid sutures is that they are
- A. absorbed by the body.
 - B. encapsulated by the body.
 - C. nonabsorbable.
 - D. used for skin only.
33. Tissue trauma is best minimized by using a
- A. threaded suture on a taper needle.
 - B. threaded suture on a cutting needle.
 - C. suture swaged on a needle.
 - D. French eye needle.
34. Removal of an entire eyeball is called
- A. evisceration.
 - B. exenteration.
 - C. evacuation.
 - D. enucleation.
35. A drug used to constrict the pupil and reduce intraocular pressure is
- A. acetylcholine (Miochol).
 - B. gentamicin sulfate (Garamycin).
 - C. phenylephrine hydrochloride (Neo-Synephrine).
 - D. tetracaine hydrochloride (Pontocaine).
36. The inability to direct both eyes at the same object because of lack of coordination of the extraocular muscles is called
- A. strabismus.
 - B. Silver-Hildreth syndrome.
 - C. blepharochalasis.

- D. dyskinesia.
37. A type of cataract extraction in which the lens and its capsule are removed is
- A. phacoemulsification.
 - B. extracapsular.
 - C. intracapsular.
 - D. keratoplasty.
38. Which of the following sutures is treated with a salt solution to decrease its absorbability?
- A. Plain gut
 - B. Vicryl
 - C. chromic
 - D. Nylon
39. The Van Lint block is done to
- A. produce regional anesthesia of the facial nerve.
 - B. decrease intraocular pressure.
 - C. prevent retinal detachment.
 - D. correct glaucoma.
40. The procedure done to correct congenital glaucoma by opening a congenital membrane from the surface of the iris to Schwalbe's line is known as
- A. cyclodialysis.
 - B. sclerectomy.
 - C. goniotomy.
 - D. dyskinesia.
41. Which of the following instruments would not be used during a vitrectomy?
- A. Kaufman II vitrector
 - B. Ocutome II cutter
 - C. Katena micrometer
 - D. Fragmatome
42. Which of the following drugs is often used for irrigating the eye and keeping the cornea moist?
- A. Balanced salt solution (BSS)
 - B. Acetylcholine (Miochol)
 - C. Tetracaine hydrochloride (Pontocaine)
 - D. Sodium hyaluronate
43. All of the following are resectoscopes except
- A. Iglesias.
 - B. Nesbit.
 - C. Van Buren.
 - D. McCarthy.
44. A surgical procedure performed to correct the abnormality in which the urethral meatus is situated on the upper side of the penis is called
- A. hypospadias repair.
 - B. epispadias repair.
 - C. urethral meatotomy.
 - D. penile implant.
45. Which of the following drugs is a dye used to evaluate the corneal epithelium?
- A. Pilocarpine
 - B. Fluorescein

- C. Sodium hyaluronate
D. Tetracaine hydrochloride
46. Which of the following is not a procedure for treatment of glaucoma?
A. Goniotomy
B. Iridectomy
C. Vitrectomy
D. Cyclodialysis
47. Which of the following is a nonelectrolytic and isosmotic solution used during a transurethral resection of the prostate (TURP)?
A. Saline
B. Distilled water
C. Glycine
D. Ringer's lactate
48. When performing bronchial washings, which of the following solutions is most preferred?
A. Ringer's lactate
B. Sterile saline
C. Sterile water
D. Distilled water
49. The cystoscope attachments of either a catheterizing or working element or a catheterizing bridge and Albarran fin assembly are used to
A. fit the telescope to the sheath of the cystoscope.
B. aid in directing ureteral catheters.
C. visualize the urethra during induction of the cystoscope.
D. aid in prostatectomy.
50. Continuous irrigation of the bladder following a transurethral resection of the prostate (TURP) is accomplished by using a/an
A. 18 Fr Robinson catheter.
B. 24 Fr 30-cc Foley balloon catheter.
C. 6 Fr ureteral catheter.
D. No. 20 mushroom catheter.
1. B. An abdominoperineal resection is performed for a lower sigmoid or rectal malignancy that requires both an abdominal and rectal incision. It is performed when an anastomosis is not possible. (Alex 307)
2. C. The suture sequence for an intestinal anastomosis is silk, chromic, chromic, silk. (past Alex 248) Note: typically done with a stapler today.
3. A. Another name for a partial gastrectomy is Billroth I operation. (Alex 288)
4. B. After completion, instruments used for an anastomosis are discarded in a separate basin away from other instruments. (Fuller 256)
5. A. A vagotomy is usually performed in combination with a pyloroplasty. (Alex 282)
6. A. A total colectomy would result in the formation of an ileostomy. (B&K 596)
7. C. Pancreatoduodenectomy is another name for Whipple's operation. (Alex 345)

8. A. Ramstedt-Fredet procedure is performed to correct pyloric stenosis in a newborn. (Alex 1159)
9. A. A splenectomy is usually performed as a result of trauma. (Alex 365)
10. D. A Pean forceps are used to provide gentle traction to the gallbladder during a cholecystectomy. (Alex 332)
11. A. A purse-string suture is placed in the cecal serosa during an appendectomy to invert the stump of the appendix. (Alex 294)
12. C. An esophagomyotomy is performed to relieve esophageal obstruction and is also known as Heller's cardiomyotomy. (Alex 282)
13. A. Upon completion of a tonsillectomy and adenoidectomy, the patient is positioned on one side, horizontally, to prevent postoperative aspiration of blood and venous engorgement. (Alex 710)
14. A. The Bankart procedure is used to repair a rotator cuff tear. (Alex 775)
15. A. Blunt dissection during cholecystectomy is accomplished by using peanut sponges. (Alex 332)
16. C. Cholesteatoma is an accumulation of squamous epithelium that forms an encrusted mass destructive to the middle ear. (Alex 654)
17. A. Caldwell-Luc operation involves an incision into the canine fossa of the upper jaw. (Alex 677)
18. A. An adenoidectomy is removal of tissue at the roof of the nasopharynx and above the soft palate to ease breathing and to prevent recurrent attacks of otitis media. (Alex 709)
19. B. Surgical correction of a deviated septum is a submucous resection, or septoplasty. (Alex 674)
20. B. Jansen-Middleton forceps are used in rhinoplasty to remove the septal cartilage and correct deformity. (Alex 676)
21. B. Otoplasty is done to correct protruding ears. (Alex 965)
22. C. A cylinder cast would be used for a green-stick fracture of the forearm.
23. A. Glossectomy is removal of the tongue. (B&K 751)
24. A. Silk sutures are not used in the presence of infection (Alex 117)
25. B. A suture's tensile strength is the amount of weight required to break it. (Alex 114)
26. B. A needle with a cutting point is used on tendon or skin tissue. (B&K 499)
27. A. A taper needle point is used in soft tissues such as peritoneum and intestine. (B&K 499)
28. B. Stainless steel suture has high tensile strength and can support a wound indefinitely. (Alex 120)
29. C. A stick tie is a suture on a needle. (B&K 492)
30. A. Myringotomy is an incision of the tympanic membrane and is performed to treat acute otitis media. (Alex 651)

31. B. When doing a final count, sponges are first counted in the operative field. (B&K 426)
32. A. Polyglycolic acid sutures are absorbed by the body. (B&K 495)
33. C. The use of a suture swaged on a needle best minimizes tissue trauma. (B&K 501)
34. D. Enucleation is removal of an entire eyeball. (Alex 608)
35. A. Acetylcholine (Miochol) is a drug used to constrict the pupil and reduce intraocular pressure. (Alex 585)
36. A. Strabismus is the inability to direct both eyes at the same object because of lack of coordination of the extraocular muscles. (Alex 605)
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38. C. Chromic suture is treated with a salt solution to decrease its absorbability. (B&K 494)
39. A. The Van Lint block is performed to produce regional anesthesia of the facial nerve. (Alex 587)
40. C. A goniotomy is done to correct congenital glaucoma by opening a congenital membrane from the surface of the iris to Schwalbe's line. (Alex 622)
41. C. The following instruments would be used during a vitrectomy: Kaufman II vitrector, Ocutome II cutter, and a fragmatome. (B&K 697)
42. A. A balanced salt solution (BSS) May be used to irrigate the eye and keeps the cornea moist.
43. C. Examples of resectoscopes are Iglesias, Nesbit, and McCarthy. (Alex 493)
44. B. An epispadias repair is a surgical procedure that corrects the abnormality in which the urethral meatus is situated on the upper side of the penis. (Alex 475)
45. B. Fluorescein is a dye used to evaluate the corneal epithelium. (Alex 585)
46. C. Glaucoma can be treated with goniotomy, iridectomy, and cyclodialysis. Vitrectomy is removal of all or part of the vitreous gel. (Alex 627)
47. C. Glycine is a nonelectrolytic and isosmotic solution that is used during a transurethral resection of the prostate (TURP). (Alex 493)
48. B. Sterile saline is the preferred solution for performing bronchial washings. (past Alex 653)
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50. B. Continuous irrigation of the bladder following a TURP is accomplished by using a 24 Fr 30-cc Foley balloon catheter. (Alex 495)
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 - B. broad, round, uterosacral.
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 - D. round, uterosacral, broad.
98. Pulse generators are typically powered by
- A. nuclear energy.
 - B. lithium.
 - C. batteries.
 - D. solar system.
99. The preferred maximum time for a tourniquet to be inflated on the thigh is
- A. 0.5 hours.
 - B. 1.5 hours.
 - C. 3 hours.
 - D. 4 hours.
100. A pneumoperitoneum is established during a laparoscopy by the
- A. bipolar forceps.
 - B. Verres needle.
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 - B. broad, round, uterosacral.
 - C. round, broad, uterosacral.
 - D. round, uterosacral, broad.
98. Pulse generators are typically powered by
- A. nuclear energy.
 - B. lithium.
 - C. batteries.
 - D. solar system.
99. The preferred maximum time for a tourniquet to be inflated on the thigh is
- A. 0.5 hours.
 - B. 1.5 hours.
 - C. 3 hours.

- D. 4 hours.
100. A pneumoperitoneum is established during a laparoscopy by the
A. bipolar forceps.
B. Verres needle.
C. tubal perfusion instrument.
D. trocar insertion.
51. A. A defibrillator and emergency drugs should be available during insertion of transvenous pacemakers because of the possibility of dysrhythmias occurring during catheter insertion. (Alex 1117)
52. C. An embolus would most likely be removed by a Fogarty catheter. (Alex 1049)
53. B. An ileal conduit would be necessary after a total cystectomy. (Alex 527)
54. C. A Masson-Jedd retractor is used during a prostatectomy. (Alex 500)
55. B. Retraction of fine sutures during vascular surgery is accomplished by use of a small rubber shod clamp.
56. C. Heparinized saline is an irrigating solution used to cleanse the inside of an artery. (Alex 1040)
57. A. In a transvenous permanent pacemaker insertion, the endocardial electrode is wedged into the myocardium of the right ventricle. (Alex 1120)
58. B. A short arm cast is used for wrist fractures and is applied from below the elbow to the knuckles. (Alex 749)
59. A. A closed thoracostomy is performed to establish continuous drainage of fluid from the chest or to aid in restoring negative pressure in the thoracic cavity. (Alex 1028)
60. B. Pulmonary decortication removes fibrinous deposits or restrictive membrane from the pleura to prevent pulmonary ventilatory function. (Alex 1026)
61. A. A bulldog clamp is a small, spring-like vascular clamp used for occluding peripheral vessels. (Alex 1043)
62. A. A Satinsky aortic clamp is used to clamp the aorta during an abdominal aneurysmectomy. (Alex 1044)
63. C. Talc poudrage is performed to produce pleural adhesions in treating spontaneous pneumothorax. (B&K 786)
64. B. An arteriovenous fistula is preferred over an arteriovenous shunt for long-term hemodialysis because it provides easier access and has a reduced risk of thrombosis. (Alex 1052)
65. A. Plication of the inferior vena cava or insertion of a Mobbin-Uddin umbrella filter is done to prevent pulmonary embolism. (Alex 1052)
66. B. Acute left ventricular failure is treated with an insertion of an intraaortic balloon pump. (Alex 1110)

67. C. In an endarterectomy, loosely attached plaque may be removed from arteries with the use of a Freer elevator. (Fuller 531)
68. B. A disadvantage of using a Javid shunt during carotid endarterectomy is possible dislodgement of debris when inserting shunt. (Alex 1050)
69. C. Thoracentesis is removal of air or blood from the pleural cavity with needle aspiration. (Keane 1606)
70. A. Chamber pressures and oxygen saturation levels can be determined with a cardiac catheterization. (1069)
71. C. Abduction pillows help to immobilize hip joints following a total hip replacement. (Alex 823)
72. A. Posterior fossa exploration is executed through a suboccipital approach. (Alex 913)
73. B. Bennett retractors are used to hold back muscles during a hip pinning.
74. A. A portacaval shunt is used to treat a patient with an intrahepatic obstruction. (Fuller 537)
75. D. A cortical bone graft is made of hard, dense bone and can be taken from the tibia. (Alex 763)
76. B. In an intraaortic balloon pump, the balloon is placed in the thoracic aorta. (Alex 1110)
77. A. Harvey Cushing is considered the father of modern neurosurgery and established at Harvard the first school of neurosurgery. (B&K 763)
78. B. Randall forceps are used to remove stones from the common bile duct. (Alex 268)
79. B. An instrument count requires that all instruments and parts be counted. (B&K 429)
80. C. A tonometer measures intraocular pressure. (B&K 691)
81. A. The monopolar coagulator is not used around delicate neural tissues. (Alex 886)
82. B. Methyl methacrylate might be used during a total knee joint replacement. (Alex 825)
83. D. When requested for surgery, a bone allograft should be delivered to the field, cultured, and soaked in an antibiotic. (Alex 762)
84. B. Beckman-Adson is a retractor used during a lumbar laminectomy. (Alex 7922)
85. B. The patient's knee should be placed at the lower break of the operating room table during an arthroscopy of the knee. (Alex 836)
86. A. Kuntschner, Schneider, and Russell-Taylor are examples of intramedullary rods. (Alex 794)
87. A. A hip fracture patient is placed on a fracture table (sometimes called an orthopedic table) to enable the surgeon to apply and maintain traction. (B&K 663)
88. B. A device that provides a fixed fulcrum for knee manipulation during arthroscopy is a "surgical assistant." (past Alex 647)
89. A. An Esmarch bandage is used to facilitate drainage of extremity vessels before application of a tourniquet. (Alex 748)

90. C. A myelogram is a diagnostic procedure in which radiopaque dye is injected into the spinal subarachnoid space through a lumbar puncture. (Alex 877)
91. C. Raney scalp clips are used most often for scalp hemostasis during a craniotomy. (Alex 885)
92. C. A dilatation and curettage might be performed for menorrhagia, which is abnormal uterine bleeding. (Alex 409)
93. B. The main advantage of using the open technique for laparoscopy is because it is less likely to perforate the abdominal organs. (B&K 614)
94. A. Instruments used to close the vaginal cuff during an abdominal hysterectomy are considered contaminated. (B&K 619)
95. C. A cesarean section requires three closure counts [uterus + two normal counts]. (past B&K 475)
96. B. The placement of a collar suture at the internal cervical Os to prevent spontaneous abortion is the Shirodkar procedure. (Alex 411)
97. C. The correct sequence for grasping, cutting, and suturing the uterine ligaments during an abdominal hysterectomy is round, broad, and uterosacral. (Alex 424)
98. B. Pulse generators are typically powered by lithium. (Alex 1117)
99. B. The preferred maximum time for a tourniquet to be inflated is 1.5 hours. (Alex 748)
100. B. A pneumoperitoneum is established during a laparoscopy by the Verres needle. (B&K 584)
101. The bladder retractor used in a C-section is the
 A. Jackson.
 B. Heaney.
 C. De Lee.
 D. O'Sullivan-O'Connor.
102. When using an irrigating fluid in neurosurgery, it should be kept
 A. hot. (>120 degrees).
 B. cold. (<80 degrees)
 C. warm. (105-110 degrees)
 D. in a warmer until ready to use.
103. Which of the following devices would not be used during a laminectomy?
 A. Pituitary rongeur
 B. Ronjair drill
 C. Craniotome
 D. Kerrison rongeur
104. The dura is often closed with interrupted sutures of
 A. 2-O chromic.
 B. 4-O silk or Nuralon.
 C. 26 gauge wire.
 D. 6-O Prolene.

105. Transsphenoidal hypophysectomy is performed for
- A. cerebral tumors.
 - B. Parkinson's disease.
 - C. pituitary tumors.
 - D. intracranial revascularization.
106. The condition involving premature closure of infant suture lines is referred to as
- A. cranioplasty.
 - B. cranioblastoma.
 - C. craniosynostosis.
 - D. craniotomy.
107. A culdocentesis is sometimes performed to diagnose
- A. ectopic pregnancy.
 - B. cystocele.
 - C. cervical carcinoma.
 - D. endometriosis.
108. A vesicourethral abdominal suspension done to treat stress incontinence is
- A. McDonald procedure.
 - B. Shirodkar procedure.
 - C. Marshall-Marchetti procedure.
 - D. Wertheim procedure.
109. Luque rods and wires, the Wisconsin compression system, Drummond hook holder, and Dwyer instrumentation would all be used for
- A. intramedullary nailing.
 - B. bimalleolar fractures.
 - C. correcting spinal deformities.
 - D. cervical deformities.
110. Baker's cysts are found in the
- A. popliteal fossa.
 - B. olecranon fossa.
 - C. interdigital fossa.
 - D. sacral fossa.
111. A dorsally angulated fracture of the distal radius caused by breaking a fall with an outstretched hand is called
- A. Pott's fracture.
 - B. Colles' fracture.
 - C. olecranon fracture.
 - D. greenstick fracture.
112. A total hip replacement is the procedure of choice for patients with
- A. transcervical fracture.
 - B. chronic hip displacement.
 - C. rheumatoid arthritis.
 - D. intertrochanteric femoral fractures.
113. Chronic dislocation of the patella may predispose the patient to a condition called
- A. osteoarthritis.
 - B. chondromalacia.
 - C. osteoporosis.
 - D. osteopathy.

114. Femoral shaft fractures in adults may be corrected by means of
- A. intramedullary nailing.
 - B. compression plating.
 - C. closed reduction.
 - D. either A or B.
115. Knowles, Hagie, and Deyerle are pins used for fixation of
- A. radial head fractures.
 - B. femoral neck fractures.
 - C. femoral shaft fractures.
 - D. patellar fracture.
116. The Tri-Axial, Schlein, and Pritchard prostheses are used in
- A. total elbow replacement.
 - B. metacarpal joint replacement.
 - C. total knee replacement.
 - D. total hip replacement.
117. Colles' fracture is usually treated with
- A. Steinmann pins.
 - B. plate and screws.
 - C. closed reduction and cast immobilization.
 - D. intramedullary rodding.
118. Intertrochanteric fractures most frequently occur in
- A. athletes.
 - B. the elderly.
 - C. infants.
 - D. young adults.
119. Ender nails are used for
- A. intertrochanteric femoral fractures.
 - B. femoral neck fractures.
 - C. hip prosthesis.
 - D. spine surgery.
120. Typically, how many Ender nails are used in procedures to correct fractures of the humerus shaft?
- A. One
 - B. Two to three
 - C. Four to five
 - D. More than five
121. Alligator forceps, Smillie-type knife, and Stille probe are instruments seen on what setup?
- A. Arthrotomy
 - B. Arthroscopy
 - C. Open reduction of elbow
 - D. Patellectomy
122. A cortical and cancellous bone graft is typically taken from the
- A. ilium.
 - B. olecranon.
 - C. tibia.
 - D. femur.

123. Charnley, Aufranc-Turner, and Harris are types of
- total hip implants.
 - total knee implants.
 - total shoulder implants.
 - total elbow implants.
124. Transverse or short oblique fractures may be internally fixed by
- plate and screws.
 - transfixion screws.
 - rods.
 - nails.
125. A Neer prosthesis would be used for repair of comminuted fractures of the
- femoral head.
 - humeral head.
 - radial head.
 - ulnar head.
126. During inguinal herniorrhaphy, if the transversalis fascia inferiorly is weak or not present, the superior transversalis fascia is sutured to
- Cooper's ligament.
 - external oblique aponeurosis.
 - cremaster muscle.
 - Hartman's pouch.
127. Which of the following procedures would be appropriate for correcting a fracture of the humerus shaft?
- Ender nailing
 - Bankart procedure
 - Insertion of Neer prosthesis
 - Free-lock compression screw fixation
128. Which of the following items would be used for an incomplete abortion?
- Suction curettage
 - Gaylor forceps
 - O'Connor retractor
 - Iowa membrane forceps
129. Which of the following is a herniation of Douglas's cul-de-sac?
- Cystocele
 - Enterocoele
 - Rectocele
 - Urethrocele
130. A fracture of the femoral shaft might occasionally require a
- _000200000BE9000012E7_BE3,A. body jacket cast.
- long leg cast.
 - hip spica cast.
 - short leg cast.
131. Which of the following structures must be separated from its attachment to the appendix prior to its removal?
- Ileum
 - Jejunum
 - Colon
 - Mesoappendix

132. Why is it important for a cystoscopy patient to void immediately prior to the beginning of the procedure?
- A. So the bladder is empty prior to insertion of cystoscope
 - B. The patient should not void before the procedure
 - C. To rule out residual urine in the bladder
 - D. For better visualization during the procedure
133. Which of the following instruments is not a retractor used in a prostatectomy?
- A. Harrington
 - B. Denis-Browne
 - C. Millin
 - D. Masson-Judd
134. What procedure may be performed prior to suprapubic prostatectomy?
- A. Vasectomy
 - B. Orchiopexy
 - C. Nephrectomy
 - D. Vasovasostomy
135. During subtotal thyroidectomy, which of the following nerves must be identified and preserved?
- A. Vagus nerve
 - B. Fifth cranial nerve
 - C. Recurrent laryngeal nerve
 - D. Glossopharyngeal nerve
136. Which of the following would be used during a keratoplasty?
- A. Kerrison rongeur
 - B. Bowman probes
 - C. Corneal trephine cataract knife
 - D. Pituitary instruments
137. Ferris-Smith, Reese, and Brown are all types of
- A. retractors.
 - B. dermatomes.
 - C. catheters.
 - D. implants.
138. Kirschner wires are inserted by
- A. a drill.
 - B. a mallet.
 - C. twisting with a kocher.
 - D. an assistant.
139. Which of the following catheters may be used to diagnose lesions of the female urethra?
- A. Foley
 - B. Fogarty
 - C. Davis
 - D. Mobbin-Uddin
140. Which of the following retractors would not be found on a major bone set?
- A. Bennett
 - B. Hohmann
 - C. Ragnell

- D. Richardson
141. What type of instrument is a Lowman?
A. Rongeur
B. Retractor
C. Bone-holding clamp
D. Rasp
142. A Joseph elevator is used in
A. orthopedic surgery.
B. rhinologic surgery.
C. cardiovascular surgery.
D. general surgery.
143. Alloplastic implant material is used for
A. a fractured orbital floor.
B. nose and chin implants.
C. bone and joint implants for hand surgery.
D. all of the above.
144. An Allen clamp is used for
A. gastrointestinal surgery.
B. orthopedic surgery.
C. plastic surgery.
D. otologic surgery.
145. Which of the following suturing forceps are found in the basic eye instrument setup?
A. Lancaster
B. VonMandach
C. Bishop-Harmon
D. Cushing
146. An electrohydraulic cystolithotripter may be used to crush stones by using
A. ultrasound waves.
B. shock waves initiated by electric current.
C. a laser.
D. radiation.
147. Malecot, mushroom, and sump are all types of surgical
A. drains.
B. nasogastric tubes.
C. dressings.
D. retractors.
148. What drainage system is preferred for a radical neck dissection?
A. Penrose drains
B. Closed wound suction drains
C. Red rubber
D. No drains are required
149. Microtia refers to
A. absence of the external ear.
B. small eyes.
C. small head.
D. protruding ears.

150. Syndactyly refers to
 A. protruding ears.
 B. cleft palate.
 C. webbing of the digits.
 D. small head.
101. C. A De Lee bladder retractor is used in a cesarean section. (Alex 440)
102. C. When using an irrigating fluid in neurosurgery, it should be kept between 105 and 110.
 F. As a safety check, a thermometer could be placed in the basin of the solution. (B&K 765)
103. C. A pituitary rongeur, Ronjair drill, and Kerrison rongeur are all used in a laminectomy. A craniotome is used for a craniotomy. (Alex 922)
104. B. In neurosurgery, the dura is often closed with interrupted sutures of 4-O silk or Nuralon. (Alex 901)
105. C. Transsphenoidal hypophysectomy is a treatment for pituitary tumors. (Alex 911)
106. C. Craniosynostosis is a condition in which infant suture lines are prematurely closed. (Alex 913)
107. A. A culdocentesis is insertion of an aspirating needle through the posterior fornix of the vagina and is used to diagnose ectopic pregnancy. (Alex 414)
108. C. Marshall-Marchetti procedure is a vesicourethral abdominal suspension that treats stress incontinence. (Alex 518)
109. C. Luque rods and wires, the Wisconsin compression system, Drummond hook holder, and Dwyer instrumentation would all be used for correcting spinal deformities. (Alex 849)
110. A. A Baker's cyst is found in the popliteal fossa. (Alex 807)
111. B. Colles' fracture is a dorsally angulated fracture of the distal radius caused by breaking a fall with an outstretched hand. (Alex 785)
112. C. Total hip replacement is often indicated for patients suffering from rheumatoid arthritis. (Alex 815)
113. B. Chronic dislocation of the patella may predispose a patient to chondromalacia. (Alex 803)
114. D. Femoral shaft fractures in adults may be corrected with intramedullary nailing or compression plating. (Alex 794)
115. B. Knowles, Hagie, and Deyerle are pins used for fixation of femoral neck fractures. (Alex 792)
116. A. The 'X-Axial, Schlein, and Pritchard prostheses are used in total elbow replacement. (Alex 829)
117. C. Colles' fracture is usually treated with closed reduction and cast immobilization. (Alex 785)

118. B. Intertrochanteric fractures occur most frequently in the elderly. (Alex 1208)
119. A. Ender nails are used for intertrochanteric femoral fractures. (Alex 794)
120. B. Two to three Ender nails are typically used in procedures to correct fractures of the humerus shaft. (Alex 779)
121. B. An arthroscopy setup would include alligator forceps, Smillie-type knife, and a Stille probe. (past 653-655)
122. A. Cortical and cancellous bone grafts are typically taken from the ilium. (Alex 763)
123. A. Charnley, Aufranc-Turner, and Harris are examples of total hip implants. (Alex 824)
124. A. Transverse or short oblique fractures may be internally fixed by plate and screws. (Alex 772)
125. B. A Neer prosthesis would be used for repair of comminuted fractures of the humeral head. (Alex 829)
126. A. During inguinal herniorrhaphy, if the transversalis fascia inferiorly is weak or not present, the superior transversalis fascia is sutured to Cooper's ligament. (Alex 367)
127. A. Ender nailing is an appropriate operative procedure for correcting a fracture of the humerus shaft. (Alex 776)
128. A. Suction curettage is used for an incomplete abortion. (Alex 393)
129. B. A herniation of Douglas's cul-de-sac is an enterocele. (B&K 616)
130. C. A fracture of the femoral shaft would require a hip spica cast. (Alex 750)
131. D. The mesoappendix must be separated from its attachment to the appendix prior to its removal. (Alex 295)
132. C. It is important for a cystoscopy patient to void immediately prior to the beginning of the procedure to rule out residual urine in the bladder. (Alex 459)
133. A. Denis-Browne, Millin, and Masson-Judd retractors are used in a prostatectomy. A Harrington retractor is used in abdominal surgery. (Alex 500)
134. A. Prior to suprapubic prostatectomy, a vasectomy may be performed to decrease the postoperative incidence of epididymitis and orchitis. (Alex 501)
135. C. The recurrent laryngeal nerve must be identified and preserved during subtotal thyroidectomy. (Alex 553)
136. C. A corneal trephine cataract knife would be used during a keratoplasty. (Alex 610)
137. B. Ferris-Smith, Reese, and Brown are all examples of dermatomes. (Alex 943)
138. A. Kirschner wires are inserted with a drill. (Alex 780)
139. C. A Davis catheter may be used to diagnose lesions of the female urethra. (Alex 456)

140. C. Bennett, Hohmann, and Richardson retractors are included on a major bone set. Ragnell retractors are found on a hand tray. (Alex 758)
141. C. A Lowman is a bone-holding clamp. (Fuller 440)
142. B. A Joseph elevator is used in rhinologic surgery. (Alex 675)
143. C. Alloplastic implant material is used for bone and joint implants for hand surgery. (Alex 991)
144. A. An Allen clamp is used for gastrointestinal surgery. (Alex 273)
145. C. Bishop-Hamron suturing forceps are found in the basic ophthalmic instrument setup. (Alex 592)
146. B. Bladder stones may be crushed with an electrohydraulic cystolithotripter by using shock waves initiated by electric current. (Alex 535)
147. A. Malecot, mushroom, and sump are all types of surgical drains. (B&K 527)
148. B. Closed wound suction drains are preferred when performing a radical neck dissection. (Alex 728)
149. A. Absence of the external ear is microtia. (Keane 1004)
150. C. Webbing of the digits is syndactyly. (Alex 966)
151. Tetralogy of Fallot is a defect involving the
- A. small intestine.
 - B. spinal cord.
 - C. brain.
 - D. heart.
152. Excision of a constricted segment of the aorta with anastomosis to reestablish continuity is called
- A. repair of patent ductus arteriosus.
 - B. repair of coarctation of the aorta.
 - C. pulmonary artery banding.
 - D. transposition of the great vessels.
153. The procedure done to reduce congestion of the venous plexus around the testes and to improve spermatogenesis is a
- A. vasectomy.
 - B. hydrocelectomy.
 - C. varicoelectomy.
 - D. orchiopexy.
154. Which of the following would be found in a gastrointestinal setup?
- A. Doyen forceps
 - B. Taylor retractor
 - C. Lowsley clamp
 - D. Ellik evacuator

155. A skin graft that contains epidermis and all of the dermis is a
- A. split-thickness graft.
 - B. full-thickness graft.
 - C. delayed graft.
 - D. partial thickness graft.
156. During an exploratory laparotomy for a suspected malignancy, which of the following would be used because of its hypotonic properties?
- A. Saline
 - B. Ringer's lactate
 - C. Distilled water
 - D. Glycine
157. Schiller's test involves staining
- A. culture media.
 - B. vaginal vault and cervical squamous epithelium.
 - C. corneal tissue.
 - D. muscle tissue.
158. Which of the following would be found on a TURP setup?
- A. Goode11 dilator
 - B. Verres needle
 - C. Ellik evacuator
 - D. Hank dilator
159. Dormia, Johnson, Levant, Pfister-Schwartz, and Lomac are examples of
- A. stone baskets.
 - B. urethral catheters.
 - C. embolectomy catheters.
 - D. abdominal drains.
160. The focal length of the microscope lens used for microlaryngoscopy is
- A. 175 mm.
 - B. 250 mm.
 - C. 400mm.
 - D. 500 mm.
161. A left subcostal incision indicates surgery of the
- A. gallbladder.
 - B. spleen.
 - C. pancreas.
 - D. liver.
162. The position used when performing an abdominal gynecologic laparoscopy is
- A. lithotomy.
 - B. Fowler.
 - C. reverse Trendelenburg.
 - D. prone.
163. Utilizing electric current to close severed vessels is called
- A. coagulation.
 - B. cauterization.
 - C. fulguration.
 - D. dissection.

164. A radical procedure involving the reproductive, gastrointestinal, genitourinary, vascular, and lymphatic systems is known as a/an
- A. abdominoperineal resection.
 - B. pelvic exenteration.
 - C. Wertheim's procedure.
 - D. pancreatoduodenectomy.
165. Which of the following is a weighted vaginal speculum?
- A. Bozeman
 - B. O'Connor
 - C. Davis
 - D. Auvard
166. The purpose for performing a dacryocystorhinostomy is to
- A. establish a new tear passageway.
 - B. correct a nasal defect.
 - C. correct ectropion.
 - D. correct droopy eyelids.
167. All of the following positions are modifications of dorsal recumbent position except
- A. Trandelenburg.
 - B. Kraske.
 - C. lithotomy.
 - D. Fowler.
168. A Foley catheter is placed into a presurgical hysterectomy patient to
- A. record accurate intake and output.
 - B. distend the bladder during surgery.
 - C. avoid injury to the bladder.
 - D. no catheter is inserted.
169. To repair a meniscus, one would
- A. perform an arthroscopy.
 - B. manipulate the ankle.
 - C. immobilize the femur.
 - D. perform a Keller procedure.
- _0002000008E10000C0C_8DB,
170. An irreducible hernia whose abdominal contents have become necrotic is called a/an
- A. strangulated hernia.
 - B. incarcerated hernia.
 - C. sliding hernia.
 - D. ventral hernia.
171. A conductive lubricant must never be used on the sheath of a resectoscope because it
- A. provides a path for electric current.
 - B. encourages nosocomial infections.
 - C. obstructs the visual ability of the surgeon.
 - D. obstructs electric current flow.
172. Which of the following is considered a disadvantage when using a silicone implant?
- A. Minimal tissue reaction
 - B. Heat and time stability
 - C. Encapsulation
 - D. Nonadherence

173. A cataract lens is frequently frozen and extracted by use of a
A. cryoextractor.
B. Cavatron unit.
C. keratome.
D. phacoemulsifier.
174. Patients with marked inversion or eversion deformities of the foot such as clubfoot, polio, and rheumatoid arthritis can be helped through a
A. bunionectomy.
B. Swanson implant.
C. lapidus procedure.
D. triple arthrodesis.
175. The use of surgical staples
A. reduces tissue handling and manipulation.
B. enhances the possibility of infection.
C. reduces operating time.
D. both A and C.
176. Cesarean section may be performed for which of the following reasons?
A. Malposition and malpresentation
B. Active herpes
C. Cervical dystocia
D. All of the above
177. The following are all surgical hazards of a suprapubic prostatectomy except
A. hemorrhage.
B. phlebitis.
C. embolism.
D. acute epididymitis.
178. You are circulating for a case and are being relieved for lunch. You verify that all counts are correct with the person relieving you before you leave the room. When you return, you learn that the final count was incorrect. Who is held accountable and must sign the records?
A. You and the scrub person, because it had been your room
B. The scrub person
C. The person who relieved you and the scrub person
D. The surgeon
179. Hypocalcemic tetany is a possible postoperative complication following
A. mastectomy.
B. thyroidectomy.
C. abdominal aortic bypass.
D. cholecystectomy.
180. A lower oblique incision is a/an
A. inguinal.
B. paramedian.
C. midabdominal.
D. McBurney.
181. Surgical stapling instruments can be used for
A. resection.
B. transection.

C. anastomosis.
_000200000EAE000014E7_EA8,D. all of the above.

182. Absorbable suture is generally preferred in suturing which of the following tissue?
A. Muscle
B. Periosteum
C. Tendon
D. Ligament
183. If a tumor of the right ovary is found to be malignant at the time of surgery, what other structures will the surgeon usually remove?
A. Right fallopian tube
B. Right tube, left tube, left ovary, and uterus
C. Left ovary
D. Right tube and uterus
184. Why are stones obtained as specimens placed in dry containers?
A. To preserve for the patient to take home
B. To transport to the lab more easily
C. To prevent their getting lost
D. To avoid interference with chemical analysis
185. The en bloc removal of the entire breast, pectoral muscles, axillary lymph nodes, all fat, fascia, and adjacent muscles is known as a/an
A. modified radical mastectomy.
B. radical mastectomy.
C. adenomammectomy.
D. simple mastectomy.
186. The first step in an appendectomy is to
A. place a purse-string in the appendical base.
B. amputate the appendix.
C. dissect and ligate the mesoappendix.
D. clamp the base of the appendix.
187. The procedure currently being performed to improve vision for patients with myopia is
A. radial keratotomy.
B. keratoplasty.
C. scleral buckling.
D. vitrectomy.
188. Splenectomy may be indicated for all of the following reasons except
A. biliary calculus.
B. trauma.
C. hemolytic jaundice.
D. splenomegaly.
189. Which of the following instruments would be used to grasp the appendix during an appendectomy?
A. Kocher forceps
B. Pean clamps
C. Babcock forceps
D. None of the above
190. In bronchoscopy, the fiberoptic telescope permits visualization of the

- A. upper lobe bronchi.
 - B. middle lobe bronchi.
 - C. lower lobe bronchi.
 - D. all of the above.
191. Potassium cardioplegia is used during cardiac surgery to
- A. reduce blood vessel spasm.
 - B. produce almost immediate diastolic arrest.
 - C. increase force of contraction.
 - D. correct acidosis.
192. The amount of blood ejected by the left ventricle per minute is known as
- A. cardiac index.
 - B. preload.
 - C. cardiac output.
 - D. afterload.
193. In a three-bottle, water-seal suction system used for thoracotomy, which bottle provides the water seal?
- A. First
 - B. Second
 - C. Third
 - D. Fourth
194. A large clamp must never be put on a small specimen because it may
- A. become lost.
 - B. crush cells, making tissue identification difficult.
 - C. alter the shape of the specimen.
 - D. cause cells to disperse within the specimen.
195. All of the following can be found on a nasal setup, except a
- A. Freer elevator.
 - B. bayonet forceps.
 - C. Potts forceps.
 - D. Kerrison rongeur.
196. What is the purpose for using sequential compression stockings during neurosurgical procedures?
- A. Help maintain blood pressure
 - B. Help prevent venous stasis of lower extremities
 - C. Facilitate respirations
 - D. A and B
197. Who is credited with the development of interrupted fine silk bowel closure?
- A. Joseph Lister
 - B. William Stewart Halsted
 - C. Robert Koch
 - D. Ambrose Pare
198. The main difference between a radical mastectomy and a modified radical mastectomy is
- A. radical involves the use of a skin graft.
 - B. all axillary contents are not removed in a modified.
 - C. pectoral muscles are not removed in a modified.
 - D. modified radical offers excellent cosmetic results.

199. A serious complication in gynecologic surgery resulting from the lithotomy position is
- A. hypoxia.
 - B. hypertension.
 - C. coagulation of red blood cells.
 - D. thrombosis.
200. When are counts taken in the operating room?
- A. At the beginning and end of each case
 - B. Before beginning of case, at beginning of wound closure and at skin closure
 - C. As case begins and when case is in progress
 - D. Before beginning of case and at end of case
151. Tetralogy of Fallot is a defect involving the
- A. small intestine.
 - B. spinal cord.
 - C. brain.
 - D. heart.
152. Excision of a constricted segment of the aorta with anastomosis to reestablish continuity is called
- A. repair of patent ductus arteriosus.
 - B. repair of coarctation of the aorta.
 - C. pulmonary artery banding.
 - D. transposition of the great vessels.
153. The procedure done to reduce congestion of the venous plexus around the testes and to improve spermatogenesis is a
- A. vasectomy.
 - B. hydrocelectomy.
 - C. varicocelectomy.
 - D. orchiopexy.
154. Which of the following would be found in a gastrointestinal setup?
- A. Doyen forceps
 - B. Taylor retractor
 - C. Lowsley clamp
 - D. Ellik evacuator
155. A skin graft that contains epidermis and all of the dermis is a
- A. split-thickness graft.
 - B. full-thickness graft.
 - C. delayed graft.
 - D. partial thickness graft.
156. During an exploratory laparotomy for a suspected malignancy, which of the following would be used because of its hypotonic properties?
- A. Saline
 - B. Ringer's lactate
 - C. Distilled water
 - D. Glycine
157. Schiller's test involves staining
- A. culture media.
 - B. vaginal vault and cervical squamous epithelium.
 - C. corneal tissue.
 - D. muscle tissue.

158. Which of the following would be found on a TURP setup?
- A. Goode11 dilator
 - B. Verres needle
 - C. Ellik evacuator
 - D. Hank dilator
159. Dormia, Johnson, Levant, Pfister-Schwartz, and Lomac are examples of
- A. stone baskets.
 - B. urethral catheters.
 - C. embolectomy catheters.
 - D. abdominal drains.
160. The focal length of the microscope lens used for microlaryngoscopy is
- A. 175 mm.
 - B. 250 mm.
 - C. 400mm.
 - D. 500 mm.
161. A left subcostal incision indicates surgery of the
- A. gallbladder.
 - B. spleen.
 - C. pancreas.
 - D. liver.
162. The position used when performing an abdominal gynecologic laparoscopy is
- A. lithotomy.
 - B. Fowler.
 - C. reverse Trendelenburg.
 - D. prone.
163. Utilizing electric current to close severed vessels is called
- A. coagulation.
 - B. cauterization.
 - C. fulguration.
 - D. dissection.
164. A radical procedure involving the reproductive, gastrointestinal, genitourinary, vascular, and lymphatic systems is known as a/an
- A. abdominoperineal resection.
 - B. pelvic exenteration.
 - C. Wertheim's procedure.
 - D. pancreatoduodenectomy.
165. Which of the following is a weighted vaginal speculum?
- A. Bozeman
 - B. O'Connor
 - C. Davis
 - D. Auvard
166. The purpose for performing a dacryocystorhinostomy is to
- A. establish a new tear passageway.
 - B. correct a nasal defect.
 - C. correct ectropion.
 - D. correct droopy eyelids.

167. All of the following positions are modifications of dorsal recumbent position except
- A. Trandelenburg.
 - B. Kraske.
 - C. lithotomy.
 - D. Fowler.
168. A Foley catheter is placed into a presurgical hysterectomy patient to
- A. record accurate intake and output.
 - B. distend the bladder during surgery.
 - C. avoid injury to the bladder.
 - D. no catheter is inserted.
169. To repair a meniscus, one would
- A. perform an arthroscopy.
 - B. manipulate the ankle.
 - C. immobilize the femur.
 - D. perform a Keller procedure.
170. An irreducible hernia whose abdominal contents have become necrotic is called a/an
- A. strangulated hernia.
 - B. incarcerated hernia.
 - C. sliding hernia.
 - D. ventral hernia.
171. A conductive lubricant must never be used on the sheath of a resectoscope because it
- A. provides a path for electric current.
 - B. encourages nosocomial infections.
 - C. obstructs the visual ability of the surgeon.
 - D. obstructs electric current flow.
172. Which of the following is considered a disadvantage when using a silicone implant?
- A. Minimal tissue reaction
 - B. Heat and time stability
 - C. Encapsulation
 - D. Nonadherence
173. A cataract lens is frequently frozen and extracted by use of a
- A. cryoextractor.
 - B. Cavitron unit.
 - C. keratome.
 - D. phacoemulsifier.
174. Patients with marked inversion or eversion deformities of the foot such as clubfoot, polio, and rheumatoid arthritis can be helped through a
- A. bunionectomy.
 - B. Swanson implant.
 - C. lapidus procedure.
 - D. triple arthrodesis.
175. The use of surgical staples
- A. reduces tissue handling and manipulation.
 - B. enhances the possibility of infection.
 - C. reduces operating time.
 - D. both A and C.

176. Cesarean section may be performed for which of the following reasons?
- A. Malposition and malpresentation
 - B. Active herpes
 - C. Cervical dystocia
 - D. All of the above
177. The following are all surgical hazards of a suprapubic prostatectomy except
- A. hemorrhage.
 - B. phlebitis.
 - C. embolism.
 - D. acute epididymitis.
178. You are circulating for a case and are being relieved for lunch. You verify that all counts are correct with the person relieving you before you leave the room. When you return, you learn that the final count was incorrect. Who is held accountable and must sign the records?
- A. You and the scrub person, because it had been your room
 - B. The scrub person
 - C. The person who relieved you and the scrub person
 - D. The surgeon
179. Hypocalcemic tetany is a possible postoperative complication following
- A. mastectomy.
 - B. thyroidectomy.
 - C. abdominal aortic bypass.
 - D. cholecystectomy.
180. A lower oblique incision is a/an
- A. inguinal.
 - B. paramedian.
 - C. midabdominal.
 - D. McBurney.
181. Surgical stapling instruments can be used for
- A. resection.
 - B. transection.
 - C. anastomosis.
 - D. all of the above.
182. Absorbable suture is generally preferred in suturing which of the following tissue?
- A. Muscle
 - B. Periosteum
 - C. Tendon
 - D. Ligament
183. If a tumor of the right ovary is found to be malignant at the time of surgery, what other structures will the surgeon usually remove?
- A. Right fallopian tube
 - B. Right tube, left tube, left ovary, and uterus
 - C. Left ovary
 - D. Right tube and uterus
184. Why are stones obtained as specimens placed in dry containers?
- A. To preserve for the patient to take home
 - B. To transport to the lab more easily

- C. To prevent their getting lost
 D. To avoid interference with chemical analysis
185. The en bloc removal of the entire breast, pectoral muscles, axillary lymph nodes, all fat, fascia, and adjacent muscles is known as a/an
 A. modified radical mastectomy.
 B. radical mastectomy.
 C. adenomammectomy.
 D. simple mastectomy.
186. The first step in an appendectomy is to
 A. place a purse-string in the appendical base.
 B. amputate the appendix.
 C. dissect and ligate the mesoappendix.
 D. clamp the base of the appendix.
187. The procedure currently being performed to improve vision for patients with myopia is
 A. radial keratotomy.
 B. keratoplasty.
 C. scleral buckling.
 D. vitrectomy.
188. Splenectomy may be indicated for all of the following reasons except
 A. biliary calculus.
 B. trauma.
 C. hemolytic jaundice.
 D. splenomegaly.
189. Which of the following instruments would be used to grasp the appendix during an appendectomy?
 A. Kocher forceps
 B. Pean clamps
 C. Babcock forceps
 D. None of the above
190. In bronchoscopy, the fiberoptic telescope permits visualization of the
 A. upper lobe bronchi.
 B. middle lobe bronchi.
 C. lower lobe bronchi.
 D. all of the above.
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D. Before beginning of case and at end of case_2ETR,# ____ : ° _____
151. D. Tetralogy of Fallot is a congenital defect of the heart. (Alex 1177)
152. B. Repair of coarctation of the aorta involves excision of a constricted segment of the aorta with anastomosis to reestablish continuity. (Alex 1197)
153. C. A varicocele is performed to reduce congestion of the venous plexus around the testes and to improve spermatogenesis. (Alex 487)
154. A. Doyen forceps are used in gastrointestinal procedures. (Alex 273)

155. B. A full-thickness graft is a skin graft that contains epidermis and all of the dermis. (Alex 950)
156. C. Distilled water is used during an exploratory laparotomy for a suspected malignancy because of its hypotonic properties. (B&K 920)
157. B. Schiller's test is staining vaginal vault and cervical squamous epithelium. (B&K 611)
158. C. An Ellik evacuator is included on a TURP setup. (B&K 650)
159. A. Dormia, Johnson, Levant, Pfister-Schwartz, and Lomac are examples of stone baskets. (B&K 650)
160. C. The focal length of the microscope lens used for microlaryngoscopy is 400 mm. (Alex 706)
161. B. Surgery of the spleen requires a left subcostal incision. (Alex 365)
162. A. A patient is placed in the lithotomy position for an abdominal gynecologic laparoscopy. (Alex 417)
163. A. Coagulation uses electric current to close severed vessels. (B&K 265)
164. B. A radical procedure that is the removal of the reproductive, gastrointestinal, genitourinary, vascular, and lymphatic systems is a pelvic exenteration. (Alex 427)
165. D. An Auvard is a weighted vaginal speculum. (Alex 394)
166. A. The establishment of a new tear passageway for drainage directly into the nasal cavity is a dacryocystorhinostomy. (Alex 603)
167. B. Trendelenburg, Fowler, and lithotomy positions are modifications of the dorsal recumbent position. (Alex 108)
168. C. To avoid injury to the bladder during a hysterectomy, a Foley catheter is inserted into the patient before surgery. (B&K 618)
169. A. To repair a meniscus, an arthroscopy should be performed. (Alex 839)
170. A. A strangulated hernia is an irreducible hernia whose abdominal contents have become necrotic. (Alex 366)
171. A. Conductive lubricants must never be used on the sheath of a resectoscope because it provides a path for electric current. (Alex 635)
172. C. Encapsulation is a disadvantage of using a silicone implant. (B&K 718)
173. A. A cataract lens is frequently frozen and extracted with a cryoextractor. (Alex 618)
174. D. A triple arthrodesis can be performed to help patients with marked inversion or eversion deformities of the foot such as clubfoot, polio, and rheumatoid arthritis. (Alex 811)
175. D. The use of surgical staples reduces tissue handling and manipulation as well as operating time. (Alex 122)
176. D. Malposition and malpresentation of the baby, active herpes, and cervical dystocia are all reasons to perform a cesarean section. (Alex 439)

177. B. Hemorrhage, embolism, and acute epididymitis are all surgical hazards of a suprapubic prostatectomy. (Alex 501)
178. C. If either the circulator or scrub person is relieved during an operation, the incoming person should verify all counts before person being relieved leaves. The individual who takes the final count is held accountable and must sign the documentation.
179. B. A possible postoperative complication of a thyroidectomy is hypocalcemic tetany. (B&K 758)
180. A. Another name for an inguinal incision is a lower oblique incision. (B&K 583)
181. D. Examples of procedures in which surgical stapling instruments can be used are resection, transection, and anastomosis. (B&K 505)
182. B. Absorbable suture is generally preferred for suturing periosteum. The surgeon's preference card should always be checked before opening suture packets. (B&K 583)
183. B. If a tumor of the right ovary is found to be malignant during surgery, the surgeon will usually also remove the right tube, left tube, left ovary, and the uterus. (Alex 432)
184. D. Stones obtained as specimens as a result of a surgical procedure are placed in dry containers to avoid interference with chemical analysis. (Alex 532)
185. B. A radical mastectomy is an en block removal of the entire breast, pectoral muscles, axillary lymph nodes, all fat, fascia, and adjacent muscles. (Alex 568)
186. C. The first step in an appendectomy is to dissect and ligate the mesoappendix. (Alex 295)
187. A. Radial keratotomy is a procedure performed to improve vision for patients with myopia. (Alex 614)
188. A. Indications for a splenectomy are trauma, hemolytic jaundice, and splenomegaly. (Alex 365)
189. C. Babcock forceps are used to grasp the appendix during an appendectomy. (Alex 295)
190. D. The fiberoptic telescope permits visualization of the upper lobe bronchi, the middle lobe bronchi, and the lower lobe bronchi during bronchoscopy. (Alex 1010)
191. B. Potassium cardioplegia is used during cardiac surgery to produce almost immediate diastolic arrest. (Alex 1091)
192. C. Cardiac output is the amount of blood ejected by the left ventricle per minute. (Alex 1068)
193. B. In a three-bottle, water-seal suction system used for thoracotomy, the second bottle provides the water seal. (Alex 1017)
194. B. A large clamp must never be put on a small specimen because it may crush cells, making tissue identification difficult. (B&K 416)
195. C. Freer elevator, bayonet forceps, and Kerrison rongeur are all found on a nasal setup. (Alex 671)
196. D. Using sequential compression stockings during neurosurgical procedures helps maintain blood pressure and prevent venous stasis of lower extremities. (Alex 882)

197. B. William Stewart Halsted is credited with the development of interrupted fine silk suture technique. (B&K 492)
198. C. In a radical mastectomy pectoral muscles are removed; they are not removed in a modified mastectomy. (Alex 569)
199. D. Thrombosis is a serious complication of gynecologic surgery performed on a patient in the lithotomy position. (B&K 444)
200. B. Counts are taken in the operating room before beginning a case, at the beginning of wound closure, and at skin closure. (B&K 425)
201. A complication of laparoscopic surgery is
- A. perforation of viscus.
 - B. hemorrhage.
 - C. gas embolism.
 - D. all of the above.
202. Which of the following incisions is generally preferred for abdominal surgery because it offers excellent exposure?
- A. Pfannenstiel
 - B. Midabdominal transverse
 - C. Vertical midline
 - D. Paramedian rectus
203. Rhytidectomy is also termed a/an
- A. nose reconstruction.
 - B. eyelid repair.
 - C. facelift.
 - D. chin reconstruction.
204. A true gynecologic/obstetric emergency is
- A. Bartholin's cyst inflammation.
 - B. cesarean section.
 - C. oophorectomy.
 - D. ruptured ectopic pregnancy.
205. The abbreviation used for left eye when writing orders for ophthalmic drugs is
- A. L.E.
 - B. O.S.
 - C. O.P.
 - D. O.D.
206. A specially treated form of surgical gauze that is a hemostatic agent is
- A. Gelfoam.
 - B. Avitene.

- C. Surgicel.
D. Adaptic.
207. A condition that causes the sudden onset of the appearance of floating spots before the eye is
A. scleral tumor.
B. retinal detachment.
C. glaucoma.
D. cataract
208. The EEA surgical stapler is used for
A. transection of the proximal bowel.
B. closure of the gastric lumen.
C. anastomosis of the proximal colon to rectum.
D. closure of the proximal colon.
209. A microfibrillar collagen that is either supplied in a compacted nonwoven web form or in loose fibrous form is known as
A. Gelfoam.
B. Oxygel.
C. Avitene.
D. Surgicel.
210. A hemostatic agent that is made from a purified gelatin solution that has been beaten to a foamy consistency, dried, and then sterilized by dry heat is known as
A. Gelfoam.
B. Helistat.
C. Avitene.
D. Adaptic.
211. The following actions should be taken when moving a patient from a stretcher to the OR table except
A. locking the wheels on the OR table.
B. having one person stabilize the stretcher.
C. having one person standing at the foot of the OR table.
D. having one person standing on the opposite side of the OR table to receive the patient.
212. A suture used in tendon repair is
A. Ethilon.
B. polyglycolic acid.
C. stainless steel.
D. nylon.
213. Which of the following sutures is a polyester fiber suture?
A. Vicryl
B. Dexon
C. Ethibond
D. Chromic
214. Which of the following ureteral catheters is used to dilate a ureter?
A. Olive tip
B. Flexible filiform tip
C. Garceau
D. Acorn tip
215. Before inserting the femoral prosthesis during a total hip replacement, which of the following activities needs to be done?

- A. Ream the acetabulum
 - B. Prepare the bone cement
 - C. Notify PACU that patient will be there in approximately 1 hour
 - D. Be sure the entire femur is fixated
216. The most widely used nonabsorbable suture is
- A. nylon.
 - B. polyester (Mersilene).
 - C. chromic.
 - D. Prolene.
217. Which of the following sizes is the smallest suture?
- A. 4-O
 - B. 2-O
 - C. 1-O
 - D. 0
218. Which of the following sutures is absorbable and offers extended wound support?
- A. Vicryl
 - B. Polydioxanone (PDS)
 - C. Plain
 - D. Chromic
219. Bolsters are used with retention sutures to
- A. prevent the suture from cutting into skin surfaces.
 - B. prevent unequal tension on the wound edges.
 - C. identify the order of suture removal.
 - D. to facilitate easy removal.
220. What type of suture is Surgilon?
- A. Absorbable
 - B. Nylon
 - C. Monofilament
 - D. Stainless steel
221. Another name for polyglactin 910 is
- A. Ethibond.
 - B. Dexon.
 - C. Vicryl.
 - D. PDS.
222. Second intention healing involves
- A. primary union.
 - B. wound contraction.
 - C. delayed suturing of the wound.
 - D. proliferative phase.
223. Which tissue type would contradict the use of a cutting needle?
- A. Eye tissue
 - B. Nerve
 - C. Tendon
 - D. Skin

224. Ligatures are used to
- A. occlude the lumen of a blood vessel.
 - B. bring tissue together.
 - C. hold tissue together until healing takes place.
 - D. approximate skin edges.
225. The suture that causes the least tissue reaction is
- A. silk.
 - B. stainless steel.
 - C. nylon.
 - D. Prolene.
226. A protein substance that is the chief constituent of connective tissue is
- A. collagen.
 - B. fibrin.
 - C. serum protein.
 - D. epithelium.
227. During pelvic or intestinal surgery, ureteral catheters or stents are used to
- A. occlude the ureteral orifice.
 - B. reduce the potential of ligation.
 - C. retract peritoneum.
 - D. none of the above.
228. When two chest tubes are used after a thoracic procedure, the upper tube is used to
- A. evacuate blood.
 - B. evacuate air.
 - C. evacuate pus.
 - D. any of the above.
229. The freeing of a nerve from its surrounding structures is termed
- A. McBride procedure.
 - B. neurolysis.
 - C. tunnel syndrome.
 - D. Keller procedure.
230. Which type of needle point would be selected for use on tendon or skin?
- A. Taper
 - B. Cutting
 - C. Blunt
 - D. None of the above
231. If tissue is approximated too tightly, it can cause
- A. ischemia.
 - B. keloids.
 - C. adhesions.
 - D. dehiscence.
232. The space caused by separation of wound edges is called
- A. 000200000C1700001318_C11,A. evisceration.
 - B. dead space.
 - C. lag phase.
 - D. adhesions.
233. A wound that heals from the bottom up is called

- A. first intention healing.
 - B. second intention healing.
 - C. third intention healing.
 - D. infected.
234. Next to stainless steel, the strongest nonabsorbable suture material is
- A. polyester.
 - B. nylon.
 - C. polyglycolic acid.
 - D. PDS.
235. What type of needle would be used on friable tissue such as liver or kidney?
- A. Side cutting point
 - B. Trocar point
 - C. Blunt point
 - D. Reverse cutting
236. The most economical ligating clip used is
- A. titanium.
 - B. stainless steel.
 - C. tantalum.
 - D. reusable.
237. A characteristic of plain surgical gut is that it
- A. will support the wound for 14 days and completely absorb in 90 days.
 - B. loses tensile strength in 5-10 days and absorbs in 70 days.
 - C. absorbs in 90 days.
 - D. is treated chemically to delay absorption.
238. The suture that has minimal absorption in 90 days and complete absorption in 6 months is
- A. polydioxanone.
 - B. polyglactin 910.
 - C. polyglycolic acid.
 - D. polyglyconate.
239. One of the weakest nonabsorbable sutures that gains tensile strength when wet is
- A. silk.
 - B. cotton.
 - C. Ethibond.
 - D. Vicryl.
240. An acceptable substitute for stainless steel in situations where strength and nonreactivity are required is
- A. nylon.
 - B. Surgilon.
 - C. polypropylene.
 - D. silk.
241. What type of needle tip is used on soft tissues?
- A. Taper
 - B. Cutting
 - C. Reverse cutting
 - D. Trocar
242. A common suturing technique used to invert the stump of the appendix is called
- A. subcuticular suture.

- B. purse-string suture.
 - C. interrupted suture.
 - D. figure-of-eight suture.
243. Which of the following structures must be identified and ligated prior to the removal of the gallbladder?
- A. Common bile duct and cystic duct
 - B. Hepatic duct and common bile duct
 - C. Cystic artery and cystic vein
 - D. Cystic duct and cystic artery
244. Which of the following catheters would be used following a common bile duct exploration?
- A. Foley
 - B. Whalen-Moss
 - C. Coudi
 - D. Robinson
245. A hiatal herniorrhaphy is performed to
- A. correct cardiospasm.
 - B. correct excessive secretion of HCL.
 - C. restore cardioesophageal junction and to correct gastroesophageal reflux.
 - D. correct pyloric stenosis.
246. A Meckel's diverticulum is found on the
- A. distal ileum.
 - B. cecum.
 - C. sigmoid.
 - D. duodenum.
247. One of the surgical hazards of a transverse colectomy is
- A. injury to the liver.
 - B. injury to the right kidney.
 - C. injury to the spleen.
 - D. none of the above.
248. A prostatic biopsy would indicate the use of a/an
- A. Otis urethrotome.
 - B. ureterscope.
 - C. Tru-Cut or Vim-Silverman needle.
 - D. pigtail stent.
249. Which of the following would be used to dilate the urethra?
- A. Hank
 - B. Van Buren sounds
 - C. Turner-Warwick
 - D. Denis-Browne
250. The surgical reanastomosis of the vas deferens is known as
- A. vasovasostomy.
 - B. varicocelectomy.
 - C. spermatocelectomy.
 - D. orchiopexy.
251. An Ellik evacuator would be used on which of the following cases?
- A. Cystoscopy
 - B. Ureterolithotomy

- C. Nephrectomy
- D. TURP

- 201. D. Gas embolism, hemorrhage, and perforation of viscus are all complications that can occur as a result of laparoscopic surgery. (B&K 615)
- 202. C. A vertical midline incision is generally preferred for abdominal surgery because it offers excellent exposure. (B&K 583)
- 203. C. Rhytidectomy is another term for a facelift. (Alex 978)
- 204. D. A ruptured ectopic pregnancy is a true gynecologic/obstetric emergency. (B&K 624)
- 205. B. O. S. is an abbreviation for left eye used in orders to specify which eye is to receive ophthalmic drugs. (B&K 699)
- 206. C. Surgicel is a specially treated form of surgical gauze that is a hemostatic agent. (B&K 472)
- 207. B. The sudden onset of the appearance of floating spots before the eye is retinal detachment. (Alex 626)
- 208. C. The EEA surgical stapler is used for anastomosis of the proximal colon to rectum. (Alex 299)
- 209. C. Avitene is a microfibrillar collagen that is supplied in a compacted nonwoven web form or in loose fibrous form. (B&K 471)
- 210. A. Gelfoam is a hemostatic agent that is made from a purified gelatin solution that has been beaten to a foamy consistency, dried, and then sterilized by dry heat. (B&K 471)
- 211. C. When moving a patient, stretchers and OR tables must be stabilized by locking wheels and by personnel. One individual should stabilize the stretcher while someone else stands at the opposite side of the OR table to receive the patient. (B&K 497)
- 212. C. A stainless steel suture is used for tendon repair. (B&K 497)
- 213. C. Ethibond is an example of a polyester fiber suture. (Alex 120)
- 214. C. A Garceau ureteral catheter is used to dilate a ureter. (B&K 642)
- 215. A. In a total hip replacement, the acetabulum is reamed to the configuration of the acetabular component before introducing the femoral prosthesis. (B&K 670)
- 216. A. Nylon is the most widely used nonabsorbable suture.
- 217. A. Size 4-0 is the smallest suture. (B&K 493)
- 218. B. Polydioxanone (PDS) is an absorbable suture that offers extended wound support. (B&K 495)
- 219. A. Bolsters are used with retention sutures to prevent the suture from cutting into skin surfaces. (Alex 129)
- 220. B. Surgilon is an example of a nylon suture. (B&K 497)

221. C. Vicryl is another name for polyglactin 910 suture. (B&K 495)
222. B. Wound contraction is involved in second intention healing. (B&K 523)
223. B. A cutting needle would not be used on nerve tissue. (B&K 499)
224. A. Ligatures are used to occlude the lumen of a blood vessel. (Alex 113)
225. B. Stainless steel sutures cause the least tissue reaction. (Alex 120)
226. A. Collagen is a protein substance that is the chief constituent of connective tissue. (B&K 523)
227. B. During pelvic or intestinal surgery, ureteral catheters or stents are used to reduce the potential of ligation. (B&K 642)
228. B. When two chest tubes are used after a thoracic procedure, the upper tube is used to evacuate air. The bottom tube is used to evacuate fluid. (B&K 529)
229. B. Neurolysis is the freeing of a nerve from its surrounding structures. (B&K 675)
230. B. A cutting needle point would be selected for use on tendon or skin tissue. (B&K 499)
231. A. Ischemia results if tissue is approximated too tightly. (B&K 526)
232. B. Dead space is the space caused by separation of wound edges. (B&K 492)
233. B. Second intention healing refers to a wound that heals from the bottom up. (B&K 523)
234. A. Polyester is the strongest nonabsorbable suture material next to stainless steel. (Alex 120)
235. C. A blunt point needle would be used on friable tissue such as liver or kidney. (B&K 499)
236. B. Stainless steel is the most economical ligating clip used. (Alex 121)
237. B. Plain surgical gut loses tensile strength in 5-10 days and absorbs in 70 days. (B&K 494)
238. A. Polydioxanone is a suture that has minimal absorption in 90 days and complete absorption in 6 months. (B&K 495)
239. B. Cotton is one of the weakest nonabsorbable sutures and gains tensile strength when wet. (B&K 496)
240. C. Polypropylene is an acceptable substitute for stainless steel in situations where strength and nonreactivity are required. (B&K 498)
241. A. A taper needle point is used on soft tissue. (B&K 499)
242. B. A purse-string suture is a common suturing technique used to invert the stump of the appendix. (B&K 502)
243. D. Cystic artery and cystic duct structures must be identified and ligated prior to removal of the gallbladder. (Alex 332)
244. B. A Whalen-Moss catheter would be used following a common bile duct exploration.

245. C. A hiatal herniorrhaphy is performed to restore cardioesophageal junction and to correct gastroesophageal reflux. (Alex 279)
246. A. A Meckel's diverticulum is found on the distal ileum. (Alex 294)
247. C. Injury to the spleen is a surgical hazard that could occur as a result of a transverse colectomy. (past Alex 266)
248. C. A Tru-Cut or Vim-Silverman needle would be used on a prostatic biopsy. (Alex 492)
249. B. A Van Buren sounds would be used to dilate the urethra. (Alex 467)
250. A. A vasovasostomy is the surgical reanastomosis of the vas deferens. (Alex 486)
251. D. An Ellik evacuator would be used on a TURP. (Alex 495)

Basic Science

Basic Science

Anatomy and Physiology

1. Lymph channels run parallel to which structures?

- A. Nerves
- B. Veins
- C. Arteries
- D. Ligaments

2. Body temperature is regulated by the:

- A. Pons
- B. Cerebellum
- C. Midbrain
- D. Hypothalamus

3. Which two electrolytes are essential for normal cardiac contractions?

- A. Phosphate and chloride
- B. Magnesium and sodium
- C. Bicarbonate and sulfate
- D. Potassium and calcium

4. Water constitutes what average normal percentage of total body weight?

- A. 20%-40%
- B. 50%-70%
- C. 70%-85%
- D. 15%-25%

5. The thyroid gland consists of right and left lobes joined by the:

- A. Larynx
- B. Isthmus
- C. Parathyroid gland
- D. Cricoid cartilage

6. Langer lines generally lie perpendicular to the direction of:

- A. Skin folds
- B. Underlying muscle tension
- C. A midline incision
- D. Movement of the bone joints

7. The arterial supply to the intestinal tract, with the exception of the stomach, duodenum, and distal rectum, is derived from the:

- A. Superior and inferior mesenteric arteries
- B. Cystic artery
- C. Gastroduodenal artery
- D. Hepatic artery

8. Excessive secretion of growth hormones in adults causes:

- A. Splenomegaly
- B. Acromegaly
- C. Cardiomegaly
- D. Hepatomegaly

9. The inner lining of the mucosa of the gastrointestinal tract is composed of:

- A. Smooth muscle
- B. Areolar connective tissue
- C. Epithelium
- D. Elastic connective tissue

10. The large artery that arises from the left side of the aortic arch and descends into the arm is the:

- A. Subclavian
- B. Carotid
- C. Brachiocephalic
- D. Radial

11. An enzyme active in the digestion of starches is:

- A. Amylase
- B. Trypsin
- C. Lipase
- D. Lactase

12. The normal pH of blood is:

- A. 3.5-4.5
- B. 7.3-7.4
- C. 8.5-9.0
- D. 9.5-10.5

13. Which cells secrete pepsinogen?

- A. Islands of Langerhans
- B. Beta
- C. Chief
- D. Parietal

14. Which of the following veins drains the intracranial venous sinuses to veins on the outside of the skull?

- A. Emissary
- B. Middle cerebral
- C. Cerebellar veins
- D. Radial veins

15. Which of the following arteries supplies blood to the brain?

- A. Anterior and middle cerebral arteries
- B. Vertebral and internal carotids
- C. External and internal carotids
- D. Occipital and thyrocervical

16. Which of the following arteries divides into the anterior and middle cerebral arteries?

- A. Internal carotid
- B. External carotid
- C. Vertebral
- D. Basilar

17. Which of the following arteries is a direct branch of the internal carotid?

- A. Vertebral
- B. Aorta
- C. Middle cerebral
- D. Facial

18. The lateral ventricles within the cerebral hemisphere communicate with the third ventricle through the opening called:

- A. Foramen of Monro
- B. Foramen ovale
- C. Foramen of Vesalius
- D. Foramen magnum

19. The third ventricle of the brain empties into the fourth ventricle through the:

- A. Aqueduct of Sylvius
- B. Choroid plexuses
- C. Foramen venosum
- D. Foramen spinosum

20. Spinal fluid is produced by the:

- A. Choroid plexus
- B. Lateral ventricle
- C. Dura mater
- D. Cerebrum

21. The fold of dura mater that separates the cerebral hemispheres:

- A. Falx cerebri
- B. Tentorium cerebelli
- C. Central sulcus
- D. Circular sulcus

22. Which of the following separates the frontal and temporal lobes?

- A. Fissure of Sylvius
- B. Fissure of Rolando
- C. Fissure of Bichat
- D. Longitudinal fissure

23. The frontal lobe is bounded posteriorly by the central sulcus, also called the:

- A. Fissure of Rolando
- B. Fissure of Sylvius
- C. Tentorium cerebelli
- D. Transverse fissure

24. Which of the following areas located in the frontal gyrus of the brain controls the function of speech?

- A. Brodmann's
- B. Broca's
- C. Temporal
- D. Cerebral cortex

25. The white line of Hilton is situated:

- A. Between the superior hemorrhoidal artery and middle hemorrhoidal artery
- B. In the area between the proximal two-thirds and distal third of the transverse colon
- C. Between the external and internal anal sphincters
- D. Between the rectum and vagina

26. A chemical reaction that provides energy by the breakdown of food molecules is called:

- A. Catabolism
- B. Metabolism
- C. Glycogenesis
- D. Anabolism

27. Adipose tissue lies in which of the following skin layers?

- A. Epidermal
- B. Subcutaneous
- C. Dermal
- D. Reticular

28. Collagen is produced by which of the following connective tissue cells?

- A. Leukocytes
- B. Osteoclasts
- C. Fibroblasts
- D. Erythrocytes

29. What is normal cardiac output for an adult?

- A. 4-8 L/minute
- B. 8-12 L/minute
- C. 12-16 L/minute
- D. 16-20 L/minute

30. Which of the following veins drains the right side of the vertebral column?

- A. Thoracic
- B. Lumbar
- C. Azygos
- D. Posterior intercostal

31. Which of the following arteries supplies the cecum, ascending colon, hepatic flexure, and proximal portion of the transverse colon?

- A. Pancreaticoduodenal
- B. Superior mesenteric
- C. Abdominal aorta
- D. Inferior mesenteric

32. The celiac artery trifurcates into the:

- A. Left gastric, splenic and hepatic arteries
- B. Internal and external iliac and femoral arteries
- C. Lumbar, gastric and splenic arteries
- D. Renal, testicular and suprarenal arteries

33. A prolongation of the breast tissue located in the upper, outer part of the breast that passes through an opening in the axillary fascia is called the:

- A. Axillary tail of Spence
- B. Cooper's ligament
- C. Axillary fascia
- D. Sebaceous gland

34. The mammary gland is fixed to the overlying skin and the underlying pectoral fascia by fibrous bands known as:

- A. Lobules
- B. Acini
- C. Suspensory ligaments of Cooper
- D. Deep pectoral fascia

35) The arterial blood supply to the breast is supplied from branches of the:

- A. Internal mammary, axillary and lateral thoracic
- B. Internal thoracic and subclavian
- C. Brachiocephalic and pulmonary
- D. Intercostal and phrenic

36. Which of the following is the loose areolar tissue that separates the breast from the pectoralis major muscle?

- A. Subcutaneous tissue
- B. Retromammary space
- C. Cooper's ligament
- D. Superficial fascia

37. Which of the following lymph nodes is located between the pectoralis major and minor muscles?

- A. Axillary
- B. Inguinal
- C. Rotter
- D. Thoracic

38. Which of the following nerves travels along the anterior-lateral chest wall and innervates the serratus anterior muscle?

- A. Axillary
- B. Long thoracic
- C. Thoracodorsal
- D. Musculotaneous

39. Which of the following nerves innervates the latissimus dorsi muscle?

- A. Subscapular
- B. Thoracodorsal
- C. Lateral pectoral
- D. Intercostobrachial

40) The nerve of Grassi is associated with the:

- A. Stomach
- B. Liver
- C. Heart
- D. Bladder

41. The veins of Sappey drain the:

- A. Spleen
- B. Bladder
- C. Diaphragm
- D. Lumbar vertebrae

42. The node of Lund is located in the:

- A. Triangle of Calot
- B. Inguinal canal
- C. Patella bursa
- D. Carotid triangle of the neck

43. Where is Hartmann's pouch located?

- A. Gallbladder infundibulum
- B. Apex of the gallbladder
- C. Stomach
- D. Liver

44) The small ducts that drain bile directly into the gallbladder are called:

- A. Hepatopancreatic
- B. Luschka
- C. Hepatic
- D. Portal

45) Which of the following is the name for the small pancreatic duct?

- A. Wirsung
- B. Santorini
- C. Accessory
- D. Cystic

46. The three structures that form the anatomical triangle of Calot:
- A. Cystic artery, right hepatic duct, common bile duct
 - B. Cystic duct, common hepatic duct, lower edge of the liver
 - C. Cystic duct, common hepatic duct, abdominal aorta
 - D. Cystic artery, common bile duct, superior edge of duodenum

47. The point of separation between the posterior rectus sheath superiorly and absence of the sheath inferiorly is called the:

- A. Arcuate line
- B. Linea alba
- C. Semilunaris
- D. Aspera

48. At what point does the external iliac artery become the femoral artery?

- A. Within the inguinal canal
- B. At the location of the inguinal ligament
- C. At the location of the ilioinguinal nerve
- D. Within the triangle of doom

49. The avascular area located in the mesentery and to the left of the middle colic artery is:

- A. The space of Riolan
- B. Sudeck's point
- C. Jackson's veils
- D. Alcock's canal

50. The series of arcades along the mesenteric border throughout the length of the colon is called the:

- A. Arc of Riolan
- B. Marginal artery of Drummond
- C. Pancreaticoduodenal arch
- D. Paracolic arcade

51. Valves of the gallbladder are called:

- A. Calot's
- B. Heister
- C. Hepatic
- D. Interlobular

52. Which of the following nerves is located lateral to the long thoracic nerve and innervates the latissimus dorsi muscle?

- A. Thoracodorsal
- B. Long thoracic
- C. Lateral pectoral
- D. Subscapular

53. Which ligament connects the thyroid to the trachea?

- A. Berry
- B. Recurrent
- C. Lateral
- D. Posterior

54. The structure that binds the small intestine to the posterior abdominal wall is the:

- A. Mesentery
- B. Greater omentum
- C. Falciform ligament
- D. Lesser omentum

55. The left gastric, right gastric, right gastroepiploic, left gastroepiploic, and short gastric arteries supply the:

- A. Spleen
- B. Stomach
- C. Duodenum
- D. Kidney

56. The two muscles that form the pelvic diaphragm are:

- A. Levator ani and coccygeus
- B. Pubococcygeus and iliococcygeus
- C. Psoas and piriformis
- D. Puborectalis and obturator internus

57. Which of the following statements describes a nonrecurrent laryngeal nerve?

- A. Variant laryngeal nerve that branches from the vagus and travels directly into the larynx
- B. Variant laryngeal nerve that branches off the superior laryngeal nerve and innervates the thyrohyoid membrane
- C. Variant laryngeal nerve that branches off the right recurrent laryngeal nerve and innervates the cricothyroid muscle
- D. Variant laryngeal nerve that branches off the spinal branch of the accessory nerve and innervates the larynx

58. Jackson's membrane would be found near the:

- A. Cecum
- B. Ascending colon
- C. Descending colon
- D. Rectum

59. The flexure between the transverse colon and the descending colon is called the:

- A. Hepatic
- B. Splenic
- C. Gastric
- D. Colic

60. The anastomosis, or linking, of arcades between the superior and inferior mesenteric vessels is known as the long anastomosis of:

- A. Roe
- B. Riolan
- C. Douglas
- D. Retzius

61. Which nerve innervates the diaphragm?

- A. Phrenic
- B. Thoracic
- C. Median
- D. Thoracodorsal

62. The rectus sheaths that meet to form a tough fibrous white band that extends from the xiphoid process to the pubic symphysis is the:

- A. Linea alba
- B. Serratus anterior
- C. External oblique
- D. Rectus abdominis

63. Which organ is completely retroperitoneal?

- A. Liver
- B. Kidney
- C. Colon
- D. Duodenum

64. The liver is divided into two principal lobes by which of the following ligaments?

- A. Cruciate
- B. Round
- C. Falciform
- D. Coronary

65. The sphincter located at the distal end of the common bile duct that opens into the duodenum is the:

- A. Oddi
- B. Vater
- C. Wirsung
- D. Pyloric

66. The cartilage distal to the thyroid cartilage and proximal to the thyroid gland is the:

- A. Articular
- B. Cricoid
- C. Tracheal
- D. Hyoid

67. Which vein is shared by the pancreas and liver?

- A. Superior vena cava
- B. Subclavian
- C. Portal
- D. Renal

68. The head of the pancreas is surrounded by the:

- A. Duodenum
- B. Jejunum
- C. Ileum
- D. Pylorus

69. Which of the following arteries supplies blood to the thyroid gland?

- A. External carotid
- B. Internal carotid
- C. Axillary
- D. Vertebral

70. What structures are located in the anterior mediastinum?

- A. Thymus, ascending aorta, lymph nodes
- B. Upper trachea, esophagus
- C. Phrenic nerves, lower trachea and bifurcation
- D. Descending aorta, thoracic duct, vagus nerve, azygous vein

71. The anatomical division between the inguinal and femoral regions is the:

- A. Femoral artery
- B. Cooper's ligament
- C. Internal spermatic vessels
- D. Poupart's ligament

72. Hesselbach's triangle is bounded by the rectus abdominis muscle, inferior epigastric vessels and:

- A. External oblique muscle
- B. Falciform ligament
- C. Inguinal ligament
- D. Linea alba

73. The inner lining of the mucosa within the gastrointestinal tract is composed of:

- A. Smooth striated muscle
- B. Areolar connective tissue
- C. Simple columnar epithelium
- D. Elastic connective tissue

74. Another name for the folds on the inner wall of the stomach is:

- A. Microvilli
- B. Plicae
- C. Rugae
- D. Pylorus

75. The area where the common bile duct joins the pancreatic duct and enters the duodenum is called the:

- A. Ampulla of Vater
- B. Duct of Santorini
- C. Duct of Wirsung
- D. Islets of Langerhans

76. The uterine artery is a branch of the anterior trunk of the:

- A. Internal iliac artery
- B. External iliac artery
- C. Aorta
- D. Femoral artery

77. The ovary is suspended from the posterior leaf of the broad ligament by the:

- A. Mesovarium
- B. Parietal peritoneum
- C. Ovarian ligament
- D. Uterus

78. The ovarian artery is a branch of the:

- A. Pelvic artery
- B. Cystic artery
- C. Rectal artery
- D. Abdominal aorta

79. Which of the following ligaments travels in the upper part of the broad ligaments below and in front of the fallopian tubes, passing over the vesicle vessels and nerve?

- A. Cardinal
- B. Uterosacral
- C. Round
- D. Pubofemoral

80. The uterine artery is a branch of the anterior trunk of the:

- A. Internal iliac artery
- B. External iliac artery
- C. Aorta
- D. Femoral artery

81. Which of the following ligaments encloses the round ligament and extends from the lateral surface of the uterus to the pelvic wall?

- A. Broad
- B. Suspensory
- C. Ovarian
- D. Infundibulopelvic

82. Which of the following is the nourishing coat of the eyeball that consists mainly of blood vessels?

- A. Choroid
- B. Iris
- C. Ciliary body
- D. Central artery

83. The ophthalmic artery divides into the:

- A. Supraorbital and supratrochlear
- B. Internal and external carotid
- C. Middle meningeal and dorsal nasal
- D. Episcleral and posterior ciliary

84. Which rectus muscle moves the eyeball upward and medially?

- A. Lateral
- B. Median
- C. Inferior
- D. Superior

85. The recurrent laryngeal nerve that supplies the vocal cords lies very close to the:

- A. Inferior thyroid artery
- B. Brachial artery
- C. External carotid
- D. Subclavian artery

86. The arterial blood supply to the nose is from branches of the internal and external:

- A. Carotids
- B. Maxillary
- C. Ethmoid
- D. Facial

87. The five branches of the facial nerve from superior to inferior after it enters the parotid gland is:

- A. Buccal, cervical, mandibular, zygomatic, temporal
- B. Temporal, zygomatic, buccal, mandibular, cervical
- C. Cervical, temporal, mandibular, zygomatic, buccal
- D. Mandibular, temporal, zygomatic, buccal, cervical

88. Where do the mental nerves and vessels exit from the mandible?

- A. Foramen
- B. Fontanel
- C. Fossa
- D. Fissure

89. In addition to the zygoma, which other bone comprises the zygomatic arch?

- A. Maxilla
- B. Temporal
- C. Mandible
- D. Sphenoid

90. Which of the following is a principal muscle of the pelvic floor?

- A. Sartorius
- B. Levator ani
- C. Internal oblique
- D. Rectus abdominis

91. The junction of the superior mesenteric and splenic veins forms the:

- A. Inferior vena cava
- B. Femoral vein
- C. Middle colic
- D. Portal vein

92. The tibial and common peroneal nerves are terminal branches of which of the following nerves?

- A. Femoral
- B. Sciatic
- C. Splenic
- D. Peroneal

93. The arterial supply to the bladder is derived mainly from the:

- A. Obturator
- B. Internal pudendal
- C. Internal iliac
- D. Umbilical

94. Which of the following structures of the kidney does urine drain into from the major calyces?

- A. Nephron
- B. Bladder
- C. Renal pelvis
- D. Ureter

95. A rounded protuberance found at a point of articulation with another bone is called a:

- A. Crest
- B. Trochlea
- C. Tubercle
- D. Condyle

96. At which vertebral level is the odontoid process located?

- A. C1
- B. C2
- C. C7
- D. L5

97. Which of the following cavities within the brain is filled with cerebrospinal fluid?

- A. Aperture
- B. Medulla
- C. Pyramids
- D. Ventricles

98. Which ligament is attached to the posterior lateral condyle of the femur and to the notch of the midline of the tibia between the tibial condyles?

- A. Posterior cruciate
- B. Patellar
- C. Anterior cruciate
- D. Lateral collateral

99. The gelatinous substance within an intervertebral disc is called the:

- A. Spinous process
- B. Nucleus pulposus
- C. Annulus fibrosus
- D. Intervertebral foramen

100. Which vein proximally travels across the neck of the abdominal aorta?

- A. Inferior mesenteric
- B. Left common iliac
- C. Splenic
- D. Renal

101. The branches of the aortic arch are:

- A. Brachiocephalic, left common carotid, left subclavian
- B. Right and left common carotid
- C. Brachiocephalic, right common carotid, right subclavian
- D. Celiac trunk, superior and inferior mesenteric

102. The terminal arterial branches of the aorta are the:

- A. Renal and gonadal
- B. Right and left common iliacs
- C. Superior and inferior mesenteric
- D. Inferior phrenic and lumbar

103. The coronary arteries originate at the base of the ascending aorta, also known as the:

- A. Sinuses of Valsalva
- B. Pulmonary sinuses
- C. Coronary sinuses
- D. Aortic sinus

104. Which of the following are branches of the left coronary artery?

- A. Anterior interventricular and right marginal
- B. Circumflex and anterior descending arteries
- C. Posterior interventricular and diagonal
- D. Sinoatrial nodal and atrioventricular nodal

105. The thoracic duct begins in the:

- A. Spinal column
- B. Abdomen at the Cisterna Chyli
- C. Base of the skull
- D. Thorax inferior to the mediastinum

106. Two-thirds of the breast tissue rests on the pectoralis major muscle and the other one-third rests on the:

- A. Pectoralis minor
- B. Teres minor
- C. Serratus anterior
- D. External oblique

107. The carotid body and carotid sinus are two sensory structures; the carotid body is a:

- A. Chemoreceptor
- B. Neuroreceptor
- C. Peptide receptor
- D. Beta-adrenergic receptor

108. The valve that prevents the retrograde flow of blood into the atrium from the left ventricle is the:

- A. Tricuspid
- B. Pulmonary
- C. Mitral
- D. Aortic

109. Deoxygenated blood is carried from the right ventricle to the lungs via which structure?

- A. Pulmonary arteries
- B. Pulmonary veins
- C. Coronary artery
- D. Vena cava

110. At the base of each internal carotid artery is an enlargement called the:

- A. Bulb
- B. Body
- C. Sinus
- D. Plexus

111. The three protective tissue layers called the meninges lie in the following order, starting with the most superficial:

- A. Arachnoid, dura mater, pia mater
- B. Pia mater, dura mater, arachnoid
- C. Dura mater, arachnoid, pia mater
- D. Arachnoid, pia mater, dura mater

112. Fissure of Sylvius separates the:

- A. Frontal and temporal lobe
- B. Parietal and occipital lobe
- C. Occipital and temporal lobe
- D. Temporal lobe and olfactory area

113. The great sensory nerve of the face and head is the:

- A. Trochlear
- B. Oculomotor
- C. Hypoglossal
- D. Trigeminal

114. Which cranial nerve emerges from the medulla, passes through the skull, and descends through the neck region into the thorax and abdominal region?

- A. IX
- B. X
- C. XI
- D. XII

115. Which of the following cranial nerves innervates the superior oblique muscle?

- A. Olfactory (I)
- B. Optic (II)
- C. Oculomotor (III)
- D. Trochlear (IV)

116. Which of the following cranial nerves innervates the inferior, medial, superior rectus, inferior oblique, and levator palpebrae muscles of the eye?

- A. Olfactory (I)
- B. Optic (II)
- C. Oculomotor (III)
- D. Trochlear (IV)

117. Which of the following cranial nerves innervates the lateral rectus muscle of the eye?

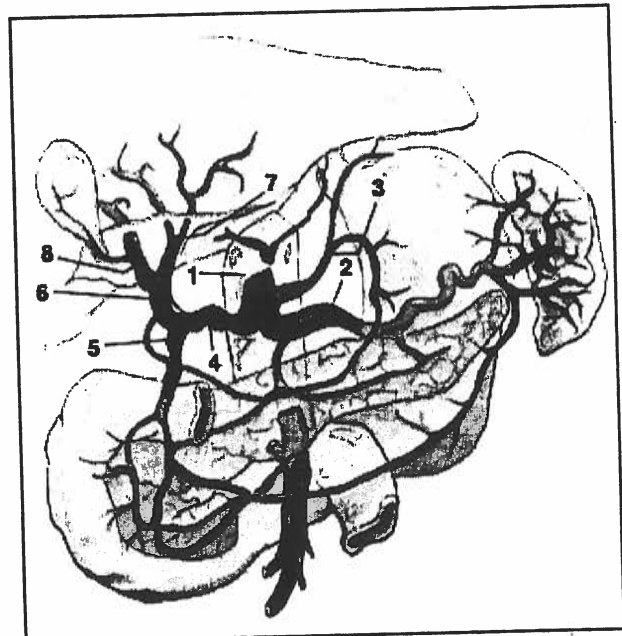
- A. Trochlear (IV)
- B. Trigeminal (V)
- C. Abducens (VI)
- D. Facial (VII)

118. The dura plane that separates the cerebrum from the cerebellum is the:

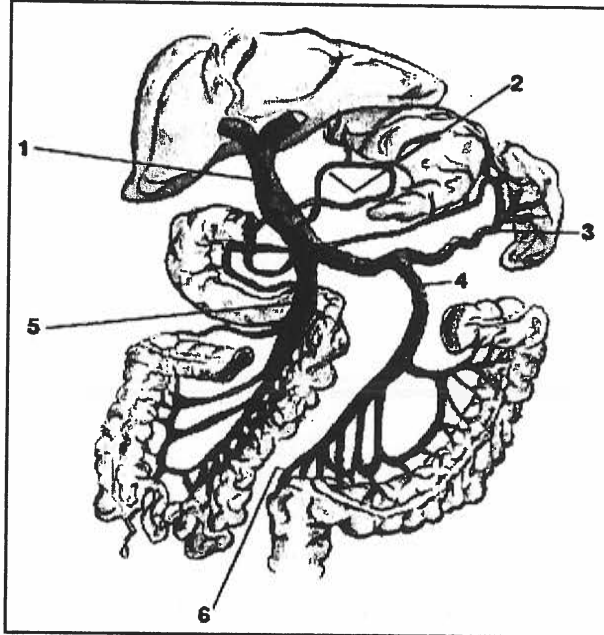
- A. Roof cerebelli, flat
- B. Tentorium cerebelli, transverse
- C. Transverse cerebelli, sigmoid
- D. Triangle cerebelli, sagittal

119. In the following diagram, identify the following arterial branches of the celiac trunk:

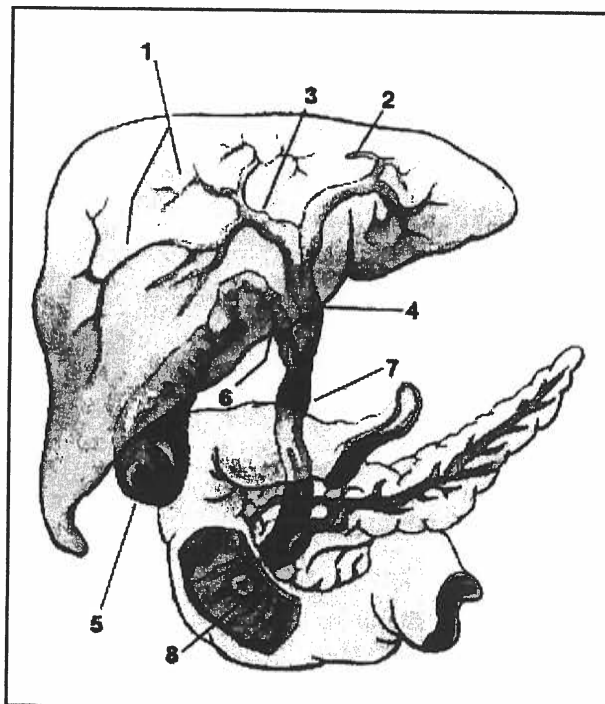
Right hepatic artery; Left hepatic artery; Proper hepatic artery; Celiac trunk; Splenic trunk; Left gastric artery; Common hepatic artery; Gastroduodenal artery.



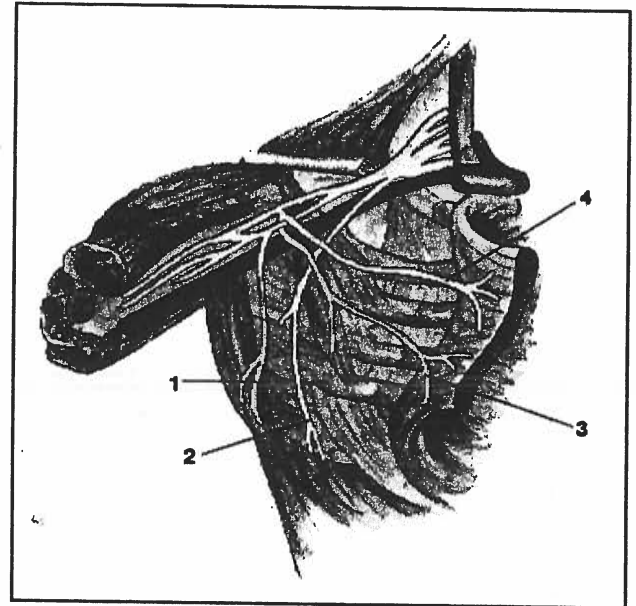
120. In the diagram below, identify the following structures:
 Inferior mesenteric vein; Superior mesenteric vein;
 Superior hemorrhoidal vein; Splenic vein; Right gas-
 tric artery; Portal vein.



121. In the diagram below, identify the following structures of the biliary tract:
 Common bile duct; Ampulla of Vater; Intrahepatic
 ducts; Right hepatic duct; Left hepatic duct;
 Gallbladder; Cystic duct; Common hepatic duct.



122. In the diagram below, identify the following nerves in the axillary region:
 Lateral pectoral; Long thoracic; Thoracodorsal;
 Medial pectoral.



Fundamentals

123. Traffic patterns in the surgery department are designed to:

- A. Aid in preventing surgical site infections
- B. Provide access for the public
- C. Promote negative air pressure in the operating rooms
- D. Maximize air currents in the department

124. What is the principal goal of suctioning blood and body fluids from the wound?

- A. Dissection of tissue
- B. Retract tissue
- C. Improve wound visibility
- D. Measure blood loss

125. The principal goal of the surgical assistant during the surgical procedure is to:

- A. Dissect tissue
- B. Apply dressings
- C. Provide exposure
- D. Position the patient

126. Which of the following characteristics of drape materials is correct?

- A. Able to absorb fluids
- B. Flame-retardant
- C. Reflect operating lights
- D. Contain lint

127. Which of the following types of patients is at risk for developing a latex sensitivity?

- A. Child with spina bifida
- B. Patient with multiple sclerosis
- C. Patient with a shellfish allergy
- D. Child with Hirschsprung's disease

128. Which of the following should be confirmed before administration of any blood product?

- A. Date of expiration
- B. Clots are present
- C. Registration number on blood bag matches patient ID number
- D. Blood product is homologous

129. The recommended minimum number of air exchanges in the O.R. is:

- A. 5 times an hour with three exchanges of fresh air
- B. 10 times an hour with four exchanges of fresh air
- C. 15 times an hour with three exchanges of fresh air
- D. 20 times an hour with four exchanges of fresh air

130. If a surgical assistant places the operative patient's well-being above all other factors, then the surgical assistant is said to have a strong:

- A. Ethical sense
- B. Surgical conscience
- C. Moral judgment
- D. Set of values

131. Seepage of skin preparation solution under a patient may result in:

- A. Bruising
- B. Nerve damage
- C. Chemical burns
- D. Skin abrasion

132. The frozen section examination provides the surgeon with a:

- A. Guideline for antibiotic therapy
- B. Diagnosis for tuberculosis
- C. Quick preliminary diagnosis
- D. Microscopic examination of smears and cultures

133. When assisting the surgeon with the draping, where should the surgical assistant stand in relation to the surgeon?

- A. On the opposite side of the O.R. table from the surgeon
- B. On the same side of the O.R. table as the surgeon
- C. Near the foot of the O.R. table
- D. At the head of the O.R. table

134. Studies show that the lowest infection rates have been obtained in surgical cases where patient body hair was:

- A. Not removed
- B. Removed using a depilatory
- C. Cut with surgical clippers
- D. Shaved

135. A hemodynamic complication in the patient could be caused by:

- A. Administration of 100% oxygen
- B. Myocardial ischemia
- C. Premature ventricular contractions
- D. Neurological thoracic outlet syndrome

136. Infants are at risk of losing body heat quickly due to their:

- A. Thin layer of subcutaneous brown fat for insulation
- B. Higher body mass in comparison to an adult
- C. Lower blood volume
- D. High demand or need for oxygen

137. Heat loss from the body occurs by all the following methods except:

- A. Radiation
- B. Evaporation
- C. Condensation
- D. Conduction

138. The earliest sign of MH is:

- A. Pyrexia
- B. Increase in end-tidal CO₂
- C. Sudden cardiac arrest
- D. Cyanotic skin and finger tips

139. Intraoperative fluid and electrolyte imbalance are affected by:

- A. Stress and anxiety, especially in children
- B. Blood loss, fluid shifts and replacement
- C. Adequate oxygenation and saturation
- D. Heart muscle contractility and function

140. Vitamin D deficiency can lead to:

- A. Hyperkalemia
- B. Hyponatremia
- C. Hypocalcemia
- D. Hypermagnesemia

141. Acid based imbalances reflect:

- A. Hypoxia, hypothermia and hypovolemia
- B. A blood pH of 7.35 to 7.45
- C. The oxygen supply being equal to the oxygen demand
- D. Oxygen saturation of 80-100 mmHg at sea level

142. Platelet concentration is often transfused during the immediate preoperative period for the purpose of:
A. Preserving clotting ability
B. Preventing hypovolemia
C. Treating hypoproteinemia
D. Correcting Rh mismatch in prenatal women

143. Hemolytic reactions caused by ABO incompatibility are most often caused by:
A. Blood transfusions lasting more than four hours
B. Human clerical error and improper identification
C. Blood contaminated with pyrogenic bacteria
D. Antibodies to the donor foreign proteins

144. The correct arm placement when positioning a patient supine with arms extended on armboards is:
A. Armboards extended $>90^\circ$ with palms facing up
B. Armboards extended $<90^\circ$ with palms facing down
C. Armboards extended $>90^\circ$ with palms facing down
D. Armboards extended $<90^\circ$ with palms facing up

145. The force of integumentary injuries that results from the skin remaining stationary while the underlying tissues shift is known as:
A. Pressure
B. Shearing
C. Friction
D. Maceration

146. Which of the following is a potential physiological response when lowering a patient's legs from the lithotomy position?
A. Hypotension
B. Hypertension
C. Bradycardia
D. Tachypnea

147. The correct range for the pneumatic tourniquet pressure on an average adult for an upper extremity is:
A. 150–200 mmHg
B. 200–250 mmHg
C. 250–300 mmHg
D. 300–350 mmHg

148. The setting of the pneumatic tourniquet pressure on an average adult for a lower extremity should be:
A. Lower than the systolic pressure by one-half of the value
B. Higher than the diastolic pressure by one-half of the value
C. Lower than the diastolic pressure by one-half of the value
D. Higher than the systolic pressure by one-half of the value

149. The most common skin cancer is:
A. Primary melanoma
B. Actinic keratosis
C. Basal cell carcinoma
D. Squamous cell carcinoma

150. In the event that a child needs an emergency procedure and the parents cannot be located to sign the permission:
A. No permission is necessary
B. Permission is signed by a court of law
C. Permission is signed by the surgeon
D. Permission is signed by two consulting physicians

151. The principle of personal liability:
A. Applies only to someone employed outside of a hospital
B. Holds everyone legally responsible for their own negligent acts
C. Holds the hospital responsible for negligence
D. Prevents malpractice suits against hospital employees

152. By definition, carcinoma in situ is a malignant neoplasm that has not:
A. Extended beyond the basement membrane
B. Spread throughout the parenchyma of the organ
C. Invaded by direct extension into adjacent organs
D. Metastasized through the body from regional lymph nodes

153. The blood component administered to patients with a clotting problem is:
A. Packed red blood cells
B. Platelets
C. Whole blood
D. Serum albumin

154. Which of the following refers to a civil wrong committed against a person or property, not including a breach of contract?
A. Tort
B. Malpractice
C. Assault and battery
D. Negligence

155. Which of the following is the normal value of the BUN for adults?
A. 7–18 mg/dl
B. 18–29 mg/dl
C. 29–40 mg/dl
D. 40–51 mg/dl

156. The specific gravity of a normal urine sample is:
A. 1.015–1.025
B. 1.025–1.035
C. 1.035–1.045
D. 1.045–1.055

157. During lateral positioning, a:
A. Pillow is placed between the legs
B. Sandbag is placed between the knees
C. Rolled towel is placed under the bottom leg
D. Sheet is folded flat between the legs

158. The lithotomy position requires each of the following EXCEPT:
A. Patient's buttocks rest along the break between the body and leg sections of the O.R. table
B. Stirrups are at equal height on both sides of the O.R. table
C. Stirrups are at the appropriate height for the length of the patient's legs to maintain symmetry
D. Each leg is raised slowly and gently as it is grasped by the toes

159. In which of the following circumstances could the patient sustain an injury to the pudendal nerves?
A. Positioned on the fracture table
B. Placed in lateral chest position
C. Placed in lithotomy position
D. Positioned on the urological table

160. An imperforation or closure of a normal opening is called:
A. Hypertrophy
B. Atresia
C. Stenosis
D. Atrophy

161. A lower oblique incision is called a/an:
A. Pfannenstiel
B. Inguinal
C. Paramedian
D. Midabdominal

162. Normal adult male range for RBC is:
A. 4.2–6.1 mill/ μ l
B. 2.8–4.2 mill/ μ l
C. 1.4–2.8 mill/ μ l
D. 0.4–1.4 mill/ μ l

163. The normal adult range of WBC is:
A. 5,000–10,000/mm³
B. 10,000–15,000/mm³
C. 15,000–20,000/mm³
D. 20,000–25,000/mm³

164. Normal adult range for sodium is:
A. 102–113 mEq/L
B. 113–124 mEq/L
C. 124–135 mEq/L
D. 136–145 mEq/L

165. Normal adult range for potassium is:
A. 1.5–3.5 mEq/L
B. 3.5–5.5 mEq/L
C. 5.5–7.0 mEq/L
D. 7.0–8.5 mEq/L

166. Which of the following types of blood components is the most common source of bacterial infection in a transfusion?
A. WBCs
B. RBCs
C. Platelets
D. Plasma

167. The doctrine of respondeat superior refers to:
A. The legal terms for assault and battery
B. Employer liability for employee's negligent conduct
C. Professional misconduct
D. "The thing speaks for itself."

168. The legal doctrine that mandates every professional to carry out his or her duties according to national standards of care practiced throughout the country is the:
A. Doctrine of reasonable man
B. Doctrine of res ipsa loquitur
C. Doctrine of respondeat superior
D. Doctrine of informed consent

169. Liability is a legal rule that:
A. Holds the patient responsible for dictating his/her care
B. Holds each individual responsible for his or her own actions
C. Holds the hospital responsible for its personnel
D. Holds the surgeon solely responsible for the care of the patient

170. Which of the following is a result of potassium imbalance?
A. Bone loss
B. Decreased osmotic pressure
C. Cardiac arrhythmias
D. Water intoxication

171. A vagal response would be:

- A. Tachycardia
- B. Bradycardia
- C. Hypothermia
- D. Pyrexia

172. The normal pH of urine is:

- A. 1.2-4.6
- B. 4.6-8.0
- C. 8.0-11.4
- D. 11.4-14.0

173. A white count of 14,000 cu/mm would most likely indicate:

- A. An infection
- B. Normal range
- C. An anemic condition
- D. The count is low

174. When an immediate confirmation of malignancy is needed, the specimen will be sent to pathology for:

- A. Permanent section
- B. Culture and sensitivity
- C. Frozen section
- D. Identification

175. A method to protect tissue from the CO₂ laser is to cover the area with:

- A. Dry towels
- B. Steri-drape
- C. Ioban™ drape
- D. Wet towels

176. Mechanical, thermal, and chemical are appropriate mechanisms to achieve:

- A. Hemodialysis
- B. Hemostasis
- C. Hemolysis
- D. Hemoptysis

177. Significantly decreased volume of circulating blood or plasma in the body may cause the patient to go into:

- A. Hypovolemic shock
- B. Anaphylactic shock
- C. Metabolic crisis
- D. Malignant hyperthermia

178. The purpose of hemostasis is to:

- A. Prevent blood loss
- B. Allow for oxygen diffusion
- C. Increase blood flow
- D. Promote active bleeding

179. Which of the following are considered biological hazards in the operating room?

- A. Anesthetic gases and toxic fumes
- B. Irradiation and cleaning agents
- C. Cytotoxic drugs and gases
- D. Body fluids and laser plume

180. Which of the following is the most common change in vital signs that is associated with early hypovolemic shock?

- A. Bradycardia
- B. Decreased blood pressure
- C. Tachypnea
- D. Tachycardia

181. Measures to treat atelectasis include:

- A. Bed rest and limited ambulation
- B. Pain control and early ambulation
- C. Repeated vigorous coughing
- D. Antimycotic agents

182. The most appropriate devices to prevent skin pressure ulcers and deep tissue injury in the O.R. are:

- A. Sand bags
- B. Gel pads
- C. Towels
- D. Sheets

183. Which nerve can be injured if the legs are improperly flexed at the hip in the lithotomy position?

- A. Obturator
- B. Saphenous
- C. Femoral
- D. Peroneal

184. Drains are typically passed to the exterior through which of the following?

- A. Superior aspect of the incision
- B. Inferior aspect of the incision
- C. Adjacent stab wound incision
- D. Medial aspect of the incision

185. Which dressing is used when moderate to heavy fluid drainage is expected?

- A. Three-layer
- B. Biologic
- C. Pressure
- D. Rigid

186. In the lateral chest position, a sandbag or padding is placed under the chest at the axillary level to:

- A. Aid in position stability
- B. Prevent pressure on the lower arm
- C. Promote proper body alignment
- D. Add warmth for the patient

187) Chvostek's sign can indicate:

- A. Hyponatremia
- B. Hypomagnesemia
- C. Hypocalcemia
- D. Hypoglycemia

188. The proper placement of the legs for a patient in the lateral position is:

- A. Both legs straight
- B. Both legs flexed
- C. Lower leg flexed, upper leg straight
- D. Lower leg straight, upper leg flexed

189. Ulnar nerve damage could result from:

- A. Improper placement of legs in stirrups
- B. External rotation of the shoulder
- C. Hyperextension of the neck
- D. Placement of an elbow on unpadded table

190. Which of the following is at the greatest risk for fluid volume deficit?

- A. Trauma victim with extensive burns of the body
- B. Congestive heart failure patient
- C. Healthy elderly patient with a fractured hip
- D. Athlete with compound fracture

Microbiology

191. *Clostridium perfringens* is associated with which clinical condition?

- A. Gas gangrene
- B. Toxic shock syndrome
- C. Botulism
- D. Anthrax

192) Phagocytosis by the white blood cells is an example of the body's:

- A. First line of defense
- B. Second line of defense
- C. Third line of defense
- D. Fourth line of defense

193. Cell "drinking" is called:

- A. Phagocytosis
- B. Pinocytosis
- C. Osmosis
- D. Diffusion

194. An organelle that is responsible for the packaging of proteins is the:

- A. Golgi complex
- B. Mitochondria
- C. Cilia
- D. Nucleus

195) An organelle that contains digestive juices is the:

- A. Nucleus
- B. Lysosome
- C. Ribosome
- D. Golgi complex

196. The anaerobic bacterium that causes gas gangrene is:

- A. *Clostridium perfringens*
- B. *Staphylococcus aureus*
- C. *Escherichia coli*
- D. *Treponema pallidum*

197) Which of the following are prokaryotic?

- A. Molds
- B. Protozoa
- C. Bacteria
- D. Plants

198) Which of the following are eukaryotic?

- A. Viruses
- B. Fungi
- C. Cyanobacteria
- D. Bacteria

199. The gram stain differentiates:

- A. Viruses
- B. Bacteria
- C. Helminths
- D. Prions

Pharmacology and Anesthesia

200) An emergency drug that increases myocardial contractility is:

- A. Calcium chloride
- B. Levophed®
- C. Lasix®
- D. Isuprel®

201) Which of the following body systems evokes a physiologic response that is similar to the response evoked by sympathomimetic cardiovascular drugs?

- A. Endocrine system
- B. Sympathetic nervous system
- C. Lymphatic system
- D. Parasympathetic nervous system

202) One kilogram is equal to:

- A. 10 grams
- B. 100 grams
- C. 1,000 grams
- D. 10,000 grams

203. All of the following statements concerning hematocrit are true EXCEPT:

- A. Normal range for women is 37-43%.
- B. Hematocrit value is the volume of red blood cells expressed as the number of cells per cubic millimeter.
- C. A decrease in hematocrit indicates a decrease in red blood cells.
- D. Hematocrit readings are unreliable after blood transfusion administration.

204. General and regional anesthesia contribute to body heat loss by causing:

- A. Vasoconstriction
- B. Vasospasm
- C. Vasodilation
- D. Vascularization

205. The primary drug utilized to treat MH is:

- A. Diazepam
- B. Dalalone
- C. Dantrolene
- D. Dienestrol

206. The isotonic solution that is closest to human physiology is:

- A. D₅NS
- B. LR
- C. 0.9 NS
- D. 0.45 NS

207. When a drug loses its effectiveness in a patient, the patient is said to have developed:

- A. Tachyphylaxis
- B. Hypersensitivity
- C. Hyperactivity
- D. Antagonist action

208. What is the mechanism of action of heparin?

- A. Breaks down the clot
- B. Prevents formation of new clots
- C. Inhibits Vitamin K synthesis
- D. Decreases platelet aggregation

209. The only depolarizing muscle relaxant in clinical use is:

- A. Rocuronium (Zemuron®)
- B. Vecuronium (Norcuron®)
- C. Cisatracurium (Nimbex®)
- D. Succinylcholine (Anectine®)

210. Lidocaine with epinephrine is contraindicated in surgery of the:

- A. Shoulder
- B. Knee
- C. Hand
- D. Hip

211. A patient scheduled for surgery has a hematocrit reading of 45% of total blood volume, which is:

- A. Within normal range
- B. Below normal range
- C. Above normal range
- D. Inconclusive

212. When drawing a blood sample, a safe time lapse between blood drawing and analysis is:

- A. 10 minutes
- B. 20 minutes
- C. 30 minutes
- D. 1 hour

213. When given as a preoperative medication, atropine produces:

- A. Analgesia
- B. Drowsiness
- C. Drying of secretions
- D. Lowering of anxiety

214. A drug combined with heparin that causes a postoperative loss of anticoagulant activity is:

- A. Papaverine
- B. Protamine sulfate
- C. Tromethamine
- D. Angiovist

215. The drug added to a local anesthetic to increase diffusion is:

- A. Alpha-chymotrypsin
- B. Hyaluronidase
- C. Epinephrine
- D. Varidase

216. Which of the following is a measurement of the pressure of carbon dioxide in the arterial blood?

- A. Partial pressure
- B. PaCO₂
- C. PaO₂
- D. QO₂

217. Which of the following is a measurement of the amount of bicarbonate in arterial blood?

- A. HCO₃
- B. pH
- C. PO₄
- D. COHb

218. Which of the following is not an inhalation anesthetic agent?

- A. Enflurane (Ethrane®)
- B. Propofol
- C. Sevoflurane
- D. Nitrous oxide

219. Cephalothin sodium (Keflin®) is a/an:

- A. Antibiotic
- B. Steroid
- C. Diuretic
- D. Mydriatic

220. A drug used to reverse hypotension is:

- A. Isoproterenol hydrochloride (Isuprel®)
- B. Propranolol hydrochloride (Inderal®)
- C. Procainamide hydrochloride (Pronestyl®)
- D. Levarterenol (Levophed®)

221. Meperidine hydrochloride (Demerol®) is a/an:

- A. Analgesic
- B. Bronchial dilator
- C. Vasoconstrictor
- D. Sedative

222. Dextran is used parenterally to:

- A. Expand blood plasma volume
- B. Nourish vital tissue
- C. Carry oxygen through the system
- D. Increase blood viscosity

223. A barbiturate that may be used for sleep the night before surgery is:

- A. Diazepam
- B. Meperidine
- C. Secobarbital
- D. Scopolamine

224. Common pathogens infecting traumatic wounds often require the use of:

- A. Penicillinase-resistant penicillin
- B. Aminoglycoside
- C. Ampicillin
- D. Tetracycline

225. What is the amount of time that heparin is systemically distributed in the adult?

- A. 3 minutes
- B. 6 minutes
- C. 9 minutes
- D. 12 minutes

226. Which of the following is an example of an isotonic IV solution?

- A. 0.9% sodium chloride
- B. 5% dextrose in water
- C. Lactated Ringer's solution
- D. Hartmann's solution

227. The volume of red blood cells in whole blood is determined by which of the following tests?

- A. Differential count
- B. Hematocrit
- C. Hemoglobin
- D. Bleeding time

228. A common complication during emergence from general anesthesia is:

- A. Hypotension
- B. Hypoxia
- C. Hyperthermia
- D. Hyperemia

229. Which of the following antibiotics should not be given as a preoperative prophylaxis to a pediatric patient?

- A. Aztreonam
- B. Gentamicin
- C. Ciprofloxacin
- D. Cefazolin

230. During the administration of general anesthesia, there is a loss of the eyelid reflex in stage:

- A. I
- B. II
- C. III
- D. IV

231. Aminoglycosides are a category of antibiotics that:

- A. Inhibit bacterial replication
- B. Can cause severe ototoxicity and nephrotoxicity
- C. Are broad spectrum
- D. Can cause photosensitivity

232. Which of these local anesthetics has a longer duration?

- A. Xylocaine
- B. Marcaine®
- C. Novocaine
- D. Cocaine

233. A microscopic blood count that estimates the percentages of each type of leukocyte within a sample is called a:

- A. Platelet
- B. Differential
- C. Hematocrit
- D. Hemoglobin

234. Some patients may show the most severe and life-threatening type of reaction to certain drugs known as:
 A. Asthma
 B. Tachyphylaxis
 C. Anaphylaxis
 D. Autoimmune disease
235. A broad spectrum bactericidal antibiotic that interferes with synthesis of the cell wall and has a chemical structure similar to the penicillins is:
 A. Cefazolin
 B. Aminoglycoside
 C. Tetracycline
 D. Sulfonamide
236. Cricoid pressure is applied to prevent:
 A. Hemorrhage
 B. Infection
 C. Bronchospasm
 D. Aspiration
237. Epinephrine should be used in which of the following situations?
 A. Glaucoma
 B. Tachycardia
 C. Hypertension
 D. Anaphylaxis
238. Which of the following is a narcotic antagonist?
 A. Naloxone hydrochloride (Narcan®)
 B. Butorphanol tartrate (Stadol®)
 C. Pentazocine hydrochloride (Talwin®)
 D. Propoxyphene hydrochloride (Darvon®)
239. The reversal agent for heparin-induced anticoagulation is:
 A. Sodium warfarin
 B. Propofol
 C. Protamine sulfate
 D. Narcan®
240. Which of the following should not be administered to a patient who is exhibiting asystole?
 A. Isoproterenol
 B. Atropine
 C. Procyclidine hydrochloride
 D. Lidocaine
241. According to the Mallampati classification of preoperatively assessing airway adequacy for intubation purposes, what is Class III?
 A. Soft palate, anterior and posterior tonsillar pillars and uvula are visualized
 B. Only the base of the uvula can be visualized
 C. Tonsillar pillars cannot be visualized
 D. Uvula cannot be visualized at all
242. In cataract surgery, a viscous jelly sometimes used to occupy space is:
 A. Alpha-chymotrypsin
 B. Mannitol
 C. Healon
 D. Wydase®
243. A miotic drug is:
 A. Pilocarpine
 B. Homatropine
 C. Atropine
 D. Scopolamine
244. Which of the following local anesthetics is used most frequently for preoperative ocular-instillation?
 A. Lidocaine
 B. Tetracaine
 C. Bupivacaine
 D. Mepivacaine
245. A solution used for eye irrigation is:
 A. Phenylephrine HCl
 B. Normal saline
 C. Alpha-chymotrypsin
 D. Balanced salt solution
246. Which of the following is a dye used in ophthalmic surgery to diagnose corneal abrasions?
 A. Fluorescein sodium
 B. Methylene blue
 C. Indigo carmine
 D. Gentian violet
247. The reactions ototoxicity and nephrotoxicity can be a result of administering:
 A. Penicillins
 B. Aminoglycosides
 C. Cephalosporins
 D. Tetracyclines
248. Which of the following drugs paralyzes the sphincter muscle of the iris?
 A. Miotics
 B. Cycloplegics
 C. Enzymes
 D. Viscoelastics
249. Which of the following statements describes second-degree AV block?
 A. Conduction time is prolonged, but atrial beats are followed by ventricular beats.
 B. Ventricle contracts before the normal series of cardiac cycle.
 C. Some, but not all, atrial beats are conducted to the ventricles.
 D. Occurs in the AV node, bundle of His, or any of the bundle branches.

250. The P-wave displays _____, and the PR segment is caused by the delay in the AV node.

- A. Atrial depolarization
- B. Electrical activity
- C. Ventricular repolarization
- D. Activation of right and left ventricles

251. The T-wave indicates:

- A. Ventricular repolarization
- B. Atrial repolarization
- C. The strength of the electrical signal
- D. The time interval between atrial and ventricular contractions

252. An emergency drug used for treating ventricular fibrillation or tachycardia is:

- A. Aramine®
- B. Atropine
- C. Inderal®
- D. Calcium chloride

253. High doses of nitrous oxide block the metabolism of which of the following?

- A. Vitamin B₆
- B. Vitamin B₁₂
- C. Vitamin C
- D. Vitamin D

254. An emergency drug used in cardiac surgery that increases myocardial contractility is:

- A. Calcium chloride
- B. Levarterenol (Levophed®)
- C. Isoproterenol hydrochloride (Isuprel®)
- D. Furosemide (Lasix®)

255. Cardiac arrhythmias of ventricular origin can be treated with:

- A. Sodium bicarbonate
- B. Atropine
- C. Lidocaine
- D. Furosemide (Lasix®)

256. What is the drug of choice when lidocaine fails to achieve response for treating ventricular tachycardia/ventricular fibrillation during sudden cardiac arrest?

- A. Esmolol
- B. Adenosine
- C. Magnesium sulfate
- D. Bretylium

Wound Healing

257. Which of the following methods should the surgical assistant consider when cutting sutures?

- A. According to the surgeon's preference
- B. According to the assistant's preference
- C. Leave a one centimeter tail for nonabsorbable suture
- D. Cut on the knot for absorbable suture

258. Which of the following would affect normal wound healing?

- A. Penicillin allergy
- B. Peripheral vascular disease
- C. Clean wound
- D. Latex allergy

259. The most common cause of delayed wound healing in the operative patient is:

- A. Wound infection
- B. Tissue loss
- C. Dehiscence
- D. Adhesions

260. The three phases of wound healing include all of the following EXCEPT:

- A. Fibroplastic phase
- B. Chronic phase
- C. Remodeling phase
- D. Inflammatory phase

261. Which of the following sutures should not be used in the placement of heart valves?

- A. Polypropylene
- B. Polyglactin
- C. Polydioxanone
- D. Polyglecaprone

262. Wounds in which there is significant bacterial contamination, foreign bodies, or extensive tissue trauma are generally closed by which intention?

- A. Delayed primary
- B. Primary union
- C. Lag
- D. Granulation

263. Which of the following types of stitch patterns provides an excellent cosmetic closure?

- A. Subcuticular stitch
- B. Retention stitch
- C. Purse-string stitch
- D. Simple stitch

264. The primary factor when selecting the surgical needle is:

- A. The metal's ability to resist corrosion
- B. Preventing microbial growth
- C. Reducing as much as possible the trauma to the tissue
- D. Ease of loading the needle on the needle holder

265. Which of the following microorganisms is responsible for causing postoperative wound edge erythema and rebound tenderness?

- A. *S. aureus*
- B. Clostridium
- C. Group B streptococci
- D. *S. epidermis*

266. It is recommended that the square knot is:

- A. Performed as a two-handed tie
- B. Only used on small vessels
- C. Performed by placing vertical tension on the final throw
- D. Only used on superficial, not deep wound, vessels.

267. Which of the following statements concerning the principles of suture placement is correct?

- A. Sutures should be placed as close to the wound edge as possible to prevent tissue necrosis.
- B. Sutures should be as far as possible from the wound edge to prevent knot slippage and displacement.
- C. Sutures should be placed in deep tissue to prevent hematoma.
- D. Suture placement should place as much tension on the tissue as possible to promote healing.

268. Sutures placed in a wound to prevent wound evisceration are called:

- A. Stent
- B. Fixation
- C. Retention
- D. Traction

269. In which incision could retention sutures be used?

- A. Vertical midline
- B. McBurney
- C. Transverse
- D. Thoracoabdominal

270. Which of the following types of stitches incorporates the seromuscular layer and submucosa?

- A. Lembert
- B. Connell
- C. Halsted
- D. Cushing

271. During hemostasis, prothrombin and thromboplastin, along with calcium ions in the blood, form:

- A. Fibrinogen
- B. Thrombin
- C. Fibrin
- D. ADP

272. Endoscopic knot tying performed externally, introduced, and secured intra-abdominally is:

- A. Intracorporeal
- B. Extracorporeal
- C. Intraabdominal
- D. Transabdominal

273. Which of the following is an abnormal activated clotting time?

- A. More than 120 seconds
- B. 90 to 120 seconds
- C. 60 - 90 seconds
- D. 30-60 seconds

274. Wound classification is assigned when:

- A. Incision is made
- B. Drain is placed
- C. Procedure is complete
- D. Cavity is entered

275. Removal of devitalized tissue is:

- A. Debridement
- B. Herniation
- C. Proliferation
- D. Dehiscence

276. Which phase of healing begins within minutes of injury?

- A. Proliferation
- B. Maturation
- C. Inflammatory
- D. Extravasation

277. Which type of needle would be selected for use on skin or tendon?

- A. Taper
- B. Blunt
- C. Cutting
- D. Trocar

278. An absorbable suture that offers extended wound support:

- A. Vicryl®
- B. PDS
- C. Plain
- D. Chromic

279. Polyglactin 910 suture is:

- A. Absorbable, natural
- B. Nonabsorbable, natural
- C. Absorbable, synthetic
- D. Nonabsorbable, synthetic

280. Continuous lateral stitches placed beneath the epithelial layer of the skin are:

- A. Interrupted
- B. Subcuticular
- C. Purse-string
- D. Subcutaneous

281. The amount of tension or pull expressed in pounds that a suture can withstand before it breaks is:

- A. Pliability
- B. Capillarity
- C. Tensile strength
- D. Knot strength

282. If the suture breaks and the remainder of the suture line stays intact, which suture technique was utilized?

- A. Interrupted
- B. Running
- C. Continuous
- D. Purse-string

283. Serosanguineous drainage means:

- A. Purulent
- B. Green-tinged
- C. Blood-tinged
- D. Hemorrhage

284. The term for a wound that completely separates and the internal organs extrude is:

- A. Dehiscence
- B. Ischemia
- C. Necrosis
- D. Evisceration

285. Which of the following is a continuous circular suture placed around the lumen of a structure causing it to close?

- A. Purse-string
- B. Vertical mattress
- C. Retention stitch
- D. Horizontal mattress

286. Postoperatively, skin staples are generally removed:

- A. Within 24 hours
- B. Within 48 hours
- C. 5-7 days
- D. 10-14 days

287. A wound that is left open and closed secondarily when there is no longer evidence of infection is an example of:

- A. Delayed closure
- B. Closure by first intention
- C. Closure by second intention
- D. Dehiscence

288. Wound drains may be secured with:

- A. Nonabsorbable suture on a cutting needle
- B. Nonabsorbable suture on a taper needle
- C. Absorbable suture on a cutting needle
- D. Absorbable suture on a taper needle

289. Which term refers to the transmission of fluid along a strand of suture?

- A. Pliability
- B. Capillarity
- C. Memory
- D. Elasticity

290. Which of the following blood components is essential in clot formation?

- A. RBCs
- B. Platelets
- C. WBCs
- D. Hemoglobin

291. Which of the following is the body's normal response to cell and tissue injury?

- A. Inflammation
- B. Infection
- C. Dehiscence
- D. Keloid

292. Which of the following causes localized temperature elevation during the inflammatory response?

- A. Increased blood flow
- B. Edema
- C. Histamine release
- D. Leukocytosis

293. Between which of the following postoperative days can dehiscence typically occur?

- A. First and third
- B. Fifth and tenth
- C. Twelfth and fifteenth
- D. Seventeenth and twentieth

294. Delayed wound healing may be related to:

- A. Blood type
- B. Gender
- C. Ethnicity
- D. Age

295. A common pathogen typically associated with decubitus ulcers is *Staphylococcus*:

- A. *Proteus*
- B. *Epidermidis*
- C. *Pyogenes*
- D. *Aureus*

296. Which wound complication would require immediate surgery?

- A. Dehiscence
- B. Evisceration
- C. Fistula
- D. Adhesion

297. Which of the following is used to reinforce a subcuticular closure?

- A. Steri-Strips®
- B. Staples
- C. Collodion
- D. Retention bridge

298. Impaired healing of a vertical abdominal incision can result in:

- A. Cellulitis
- B. Dilatation
- C. Peritonitis
- D. Herniation

General Surgery

299. During a Whipple procedure, which of the following surgical maneuvers is performed to dissect the lateral peritoneal attachments of the duodenum?

- A. Cattell
- B. Mattox
- C. Braasch
- D. Kocher

300. Which site is used for autotransplanting one or more of the parathyroid glands?

- A. Buttocks
- B. Upper leg
- C. Forearm
- D. Lower abdomen

301. A major concern in draining a gangrenous gallbladder is:

- A. Contamination
- B. Bleeding
- C. Postoperative pain
- D. Wound closure

302. Which nerve is at the greatest risk for injury during a thyroidectomy?

- A. Cervical sympathetic chain
- B. Vagus
- C. Inferior laryngeal
- D. Recurrent laryngeal

303. Which of the following anastomoses is accomplished during a Whipple procedure (pancreaticoduodenectomy)?

- A. Colostomy
- B. Ileostomy
- C. Hepaticojejunostomy
- D. Gastroduodenostomy

304. A hernia through which bowel or omentum extends and cannot be returned to its normal position through manipulation is referred to as a/an:

- A. Incarcerated hernia
- B. Sliding hernia
- C. Indirect hernia
- D. Strangulated hernia

305. Which of the following types of hernias occur in Hesselbach's triangle?

- A. Indirect
- B. Direct
- C. Sliding
- D. Strangulated

306. Which of the following is the most common type of hernia that occurs in females?

- A. Direct hernia
- B. Indirect hernia
- C. Ventral hernia
- D. Femoral hernia

307. Which of the following is the anastomosis of choice when performing a total abdominal colectomy for ulcerative colitis?

- A. Coloanal
- B. Rectosigmoidostomy
- C. Ileoanal
- D. Ileosigmoid

308. The flexure at the junction of the duodenum and jejunum is the:

- A. Ampulla of Vater
- B. Foramen of Winslow
- C. Ligament of Treitz
- D. Gastrophrenic ligament

309) Intercostal nerves and vessels are located:

- A. External to the intercostal muscles
- B. Inferior to the rib
- C. Internal to the pleural space
- D. Superior to the rib

310. The section of the gastrointestinal tract that is least affected by Crohn's disease is the:

- A. Rectum
- B. Duodenum
- C. Ascending colon
- D. Transverse colon

311. Hernia:

- A. Defect
- B. Exposed
- C. Tract
- D. Rupture

312. Which of the following nerves must be identified and protected from injury during a thyroidectomy?

- A. Facial
- B. Recurrent laryngeal
- C. Vagus
- D. Cutaneous

313. Which of the following types of incisions is used for a laparoscopy?

- A. McBurney
- B. Pfannenstiel
- C. Lower oblique
- D. Infraumbilical

314. Both direct and indirect hernias are the result of tears in the:

- A. Transversalis fascia
- B. Peritoneum
- C. Oblique fascia
- D. Scarpa's layer

315. Which nerves must be identified during an inguinal hernia repair?

- A. Iliohypogastric and ilioinguinal
- B. Inguinal and pudendal
- C. Femoral and inguinal
- D. Genitofemoral and femoral cutaneous

316. Which hernia involves the peritoneum and the abdominal viscera forms part of the hernia sac?

- A. Sliding
- B. Pantaloon
- C. Richter's
- D. Maydl's

317. During a laparoscopic hernia repair, stapling is avoided in the triangular area inferior to the internal inguinal ring, called:

- A. Nerve region
- B. Triangle of doom
- C. Triangle of Calot
- D. Koch's triangle

318. During a laparoscopic hernia repair, staples should not be placed below the lateral iliopubic tract in order to avoid injuring the:

- A. Femoral and inguinal nerves
- B. Cremasteric and circumflex iliac arteries
- C. Genitofemoral and lateral femoral cutaneous nerves
- D. External iliac and inferior epigastric arteries

319. Which of the following nerves is dissected from the lesser curvature of the stomach when performing a highly selective vagotomy (parietal cell vagotomy)?

- A. Posterior gastric
- B. Celiac ganglion
- C. Nerves of Latarjet
- D. Anterior gastric

320. The invagination of the proximal intestine into the lumen of the distal intestine is called:

- A. Volvulus
- B. Intussusception
- C. Pyloric stenosis
- D. Ileal atresia

321. Failure of the intestines to encapsulate within the peritoneal cavity of a newborn is:

- A. Umbilical hernia
- B. Omphalocele
- C. Hydrocele
- D. Intestinal exstrophy

322. Newborn vomiting, free of bile and projectile in nature, is indicative of:

- A. Atresia of the esophagus
- B. Pyloric stenosis
- C. Volvulus
- D. Intussusception

323. Hirschsprung's disease is synonymous with:

- A. Congenital aganglionosis
- B. Malrotation
- C. Ileal stenosis
- D. Meckel's diverticulum

324. The most common intraabdominal childhood tumor is:

- A. Nephroblastoma
- B. Neuroblastoma
- C. Ependymoma
- D. Medulloblastoma

325. Pathologic enlargement of the male breast is called:

- A. Subcutaneous adenoma
- B. Gynecomastia
- C. Hypoplasia
- D. Cystic mastitis

326. Surgical enlargement of the passage between the prepylorus of the stomach and the duodenum is a:

- A. Pyloromyotomy
- B. Pyloroplasty
- C. Billroth I
- D. Billroth II

327. A left subcostal incision indicates surgery of the:

- A. Gallbladder
- B. Pancreas
- C. Spleen
- D. Common bile duct

328. Which breast procedure removes the entire breast and axillary contents but preserves the pectoral muscles?

- A. Lumpectomy
- B. Wedge resection
- C. Modified radical mastectomy
- D. Radical mastectomy

329. A sigmoid colostomy is brought through the:

- A. Oblique muscle
- B. Transversus abdominis
- C. Rectus muscle
- D. Serratus anterior

330. Which of the following surgical maneuvers refers to the dissection of the lateral peritoneal attachments of the duodenum to allow inspection of the duodenum, pancreas and other retroperitoneal structures?

- A. Pringle
- B. Kocher
- C. Cattell
- D. Barlow

331. Which of the following surgical maneuvers mobilizes the descending colon to the midline to expose the abdominal aorta?

- A. Hippocratic
- B. Kocher
- C. Cattell
- D. Mattox

332. What is the most common liver cancer?

- A. Metastatic disease
- B. Hemangioma
- C. Hepatocellular carcinoma
- D. Focal nodular hyperplasia

333. Removal of all liver tissue to the right of the falciform ligament is called:

- A. Lobectomy
- B. Partial hepatectomy
- C. Trisegmentectomy
- D. Nodular resection

334. Which artery is susceptible to injury during a cholecystectomy?

- A. Splenic
- B. Left hepatic
- C. Right hepatic
- D. Superior mesenteric

335. Increased WBC, bilirubin, alkaline phosphatase and positive blood culture would be associated with:

- A. Cholangitis
- B. Pancreatitis
- C. Hepatitis
- D. Colitis

336. A tumor that involves the junction of the right and left hepatic ducts:

- A. Klatskin
- B. Gilbert
- C. Courvoisier's
- D. Adenocarcinoma

337. Which paired nerves must be carefully identified during a thyroidectomy?

- A. Inferior thyroid
- B. Recurrent laryngeal
- C. Superior laryngeal
- D. Inferior laryngeal

338. The usual location of a Meckel's diverticulum is:

- A. Just lateral to the appendix
- B. Approximately two feet from the ileocecal valve
- C. Approximately six inches distal to the hepatic flexure
- D. Just at the point of the attachment of the phrenocolic ligament to the colon

339. Postoperative complications of an appendectomy include all of the following EXCEPT:

- A. Stenosis of the ileocecal valve
- B. Intestinal obstruction
- C. Stump rupture
- D. Sepsis

340. All of the following complications can result from a total thyroidectomy EXCEPT:

- A. Hypothyroidism
- B. Tetany
- C. Hoarseness
- D. Esophageal rupture

341. Anatomical landmarks for a laparoscopic inguinal hernia include all of the following EXCEPT:

- A. Inguinal ring
- B. Inferior epigastric vessel
- C. Spermatic vessels
- D. Medial scrotal sac

342. The incision for the tracheostomy is approximately 1/4" above the:

- A. Thyroid cartilage
- B. Cricotracheal ligament
- C. Thyroid ligament
- D. Suprasternal notch

343. Which of the following nerves innervates the trapezius and sternocleidomastoid muscle, and should be identified and preserved when performing a radical neck dissection?

- A. Trochlear
- B. Accessory
- C. Phrenic
- D. Brachial

344. When closing the peritoneum or intestine, which type of needle is used?

- A. Taper
- B. Blunt
- C. Reverse cutting
- D. Side cutting

345. To establish a tracheostomy, a transverse or midline incision is made in the neck between the:

- A. Sternal notch and thymus
- B. Hyoid bone and larynx
- C. Cricoid cartilage and suprasternal notch
- D. Hypopharynx and laryngotracheal bronchus

346. Which two arteries must be preserved during pancreas retrieval?

- A. Splenic, hepatic
- B. Hepatic, gastroduodenal
- C. Splenic, superior mesenteric
- D. Gastroduodenal, superior mesenteric

347. In order to preserve the hepatic artery during liver and pancreas procurement, which branch artery must be identified and ligated?

- A. Portal
- B. Splenic
- C. Cystic
- D. Gastroduodenal

348. Zenker's diverticulum is an outpouching of the:

- A. Larynx
- B. Epiglottis
- C. Trachea
- D. Esophagus

349. An elderly patient who is one week post-abdominal surgery complains of a "popping" sensation associated with coughing or straining. The most likely cause is:

- A. Adhesion
- B. Herniation
- C. Atelectasis
- D. Dehiscence

350. Which of the following structures must be anastomosed during a liver transplant?

- A. Cystic duct
- B. Portal vein
- C. Hepatic artery
- D. Skene's duct

351. During common bile duct exploration, which of the following structures is more likely to be accidentally injured?

- A. Cystic duct
- B. Hepatic artery
- C. Abdominal aorta
- D. Inferior vena cava

352. Which of the following hernias is typically the result of postoperative wound dehiscence?

- A. Direct inguinal
- B. Indirect inguinal
- C. Incisional
- D. Femoral

353. Dumping syndrome is a complication of:

- A. Nissen fundoplication
- B. Marshall-Marchetti
- C. Pyloroplasty
- D. Gastric bypass

354. A cholesteatoma is a benign tumor that develops in the:

- A. Mastoid bone
- B. Maxillary sinus
- C. Eustachian tube
- D. Sella turcica

355. Adenocarcinoma of the head of the pancreas can result in jaundice, because of compression of the:

- A. Duodenum
- B. Bile duct
- C. Jejunum
- D. Gallbladder

356. Which of the following is an intraoperative hazard of laparoscopic surgery?

- A. Perforation
- B. Adhesions
- C. Thrombosis
- D. Hyperthermia

357. Postoperative hernias are common after which of the following incisions?

- A. Paramedian
- B. Midline
- C. McBurney's
- D. Subcostal

358. When performing an inguinal hernia repair and incising the external oblique muscle, the sensory nerve that innervates the scrotum and must be preserved is the:

- A. Ilioinguinal
- B. Femoral
- C. Scrotal
- D. Peroneal

359. Which section of the stomach is wrapped behind the esophagus during a Nissen procedure?

- A. Fundus
- B. Cardiac
- C. Greater curvature
- D. Lesser curvature

360. Which of the following retractors is typically used to retract the strap muscles during a thyroidectomy?

- A. Gelpi
- B. Skin hooks
- C. Green
- D. Love nerve

361. Which of the following is the most common physically identifiable pathology of portal hypertension?

- A. Cardiomegaly
- B. Hepatomegaly
- C. Splenomegaly
- D. Megacolon

362. A left subcostal incision is typically used for:

- A. Splenectomy
- B. Cholecystectomy
- C. Hepatectomy
- D. Pneumonectomy

363. Which of the following arteries is identified, ligated and divided during the perineal dissection portion of an abdominoperineal resection?

- A. Middle rectal artery
- B. Superior rectal artery
- C. Inferior rectal artery
- D. Accessory middle rectal artery

364. The Trendelenburg position would be most appropriate for which of the following procedures?

- A. Nissen fundoplication
- B. Laparoscopic cholecystectomy
- C. Total abdominal hysterectomy
- D. Abdominal aortic aneurysmectomy

365. A thoracoabdominal incision should be used for:

- A. Partial gastrectomy
- B. Hiatal hernia repair
- C. Whipple
- D. Splenectomy

366. A vagotomy is typically performed in conjunction with which other procedure?

- A. Splenectomy
- B. Ileostomy
- C. Pyloroplasty
- D. Gastrostomy

367. The position used typically in thyroid and gallbladder surgery is:

- A. Supine
- B. Trendelenburg
- C. Reverse Trendelenburg
- D. Prone

368. To perform cholangiography, which duct is identified and incised for placement of the cholangiocatheter?

- A. Wharton's
- B. Hepatic
- C. Cystic
- D. Common bile

369. Which of the following two tests are the most cost-efficient in preoperative determination of calculi in the bile tract?

- A. Percutaneous ultrasound, liver function tests
- B. X-rays, laparoscopic ultrasound
- C. ERCP, HIDA scan
- D. CT, PET

370. The condition of imperforate anus includes all of the following EXCEPT:

- A. Stenosis
- B. Agenesis
- C. Membrane atresia
- D. Chaliasia

371. Which position would be the most optimal for a pilonidal cystectomy?

- A. Lithotomy
- B. Kraske
- C. Knee-chest
- D. Modified prone

372. When removing anal warts with a laser, the rectum is packed with a wet sponge to:

- A. Absorb the irrigating solution
- B. Provide hemostasis
- C. Prevent escape of methane gas
- D. Minimize reflection

Obstetrics and Gynecological Surgery

373. A herniation of the cul-de-sac of Douglas is a/an:

- A. Cystocele
- B. Rectocele
- C. Hydrocele
- D. Enterocele

374. A vesicourethral abdominal suspension is known as a/an:

- A. LeFort
- B. Wertheim
- C. Marshall-Marchetti
- D. Anterior and posterior repair

375. A Stamey endoscopic procedure is performed to:

- A. Suspend the vesicle neck
- B. Correct anterior wall prolapse
- C. Correct posterior wall prolapse
- D. Repair a bladder laceration

376. The curved transverse incision used for pelvic surgery is called a/an:

- A. Midabdominal transverse
- B. Poupart
- C. Pfannenstiel
- D. McVay

377. When establishing the pneumoperitoneum for laparoscopic procedures, the CO₂ gas pressure is kept between:

- A. 10-12 mmHg
- B. 12-14 mmHg
- C. 14-16 mmHg
- D. 16-18 mmHg

378. When positioning a patient for a gynecological procedure involving the candy cane stirrups, the surgical assistant is deliberate in avoiding pressure on the lateral aspect of the patient's knee to prevent injury to which nerve?

- A. Sciatic
- B. Pudendal
- C. Sural
- D. Peroneal

379. The most commonly identified ovarian cyst is the:

- A. Chocolate
- B. Follicular
- C. Serous cystadenoma
- D. Dermoid

380. Which of the following is the preferred procedure for recurrent or persistent carcinoma of the cervix after radiation therapy has been completed?

- A. Wertheim's
- B. Pelvic exenteration
- C. Abdominal-perineal resection
- D. Low anterior resection

381. Extrauterine disease of the female reproductive system may utilize the following lasers via a colposcope or laparoscope EXCEPT the:

- A. CO₂
- B. Nd:YAG
- C. Candela
- D. Argon

382. In which of the following procedures will the patient be placed in supine position with the right side slightly elevated by a wedge?

- A. Cervical cerclage
- B. Bartholin's cyst marsupialization
- C. Simple vulvectomy
- D. Caesarean section

383. Which of the following procedures involves abdominal, perineal, and groin dissection?

- A. Radical vulvectomy
- B. Wertheim procedure
- C. Manchester procedure
- D. A & P repair

384. Which organ is frequently trapped in the inguinal sac of female patients?

- A. Small intestine
- B. Corpus of uterus
- C. Suspensory ligament
- D. Ovary

385. A vulsellum forceps is used in _____ surgery.

- A. Ophthalmic
- B. Vascular
- C. Urologic
- D. Gynecologic

386. Which of the following ligaments that contains fibrous tissue and non-striated muscle fibers passes in an inferior direction from the cervix on each side of the rectum to the front of the sacrum?

- A. Round
- B. Uterosacral
- C. Cardinal
- D. Suspensory

387. If the Veress needle is not positioned inside the peritoneal cavity, what happens to the flow of the CO₂ and pressure?.

- A. Flow and pressure increase
- B. Flow decreases and pressure increases
- C. Flow and pressure decrease
- D. Flow increases and pressure decreases

388. Which of the following arteries is contained within the cardinal ligament?

- A. Ovarian
- B. Uterine
- C. Superior vesical
- D. Obturator

Ophthalmic Surgery

389. During cataract surgery, the irrigation/aspiration handpiece is used for:

- A. Anterior capsulotomy
- B. Posterior capsulotomy
- C. Peripheral iridectomy
- D. Removed residual cortex

390. Retraction of eyelid tissues requiring intermittent retraction and release over a period of time is accomplished by utilizing:

- A. Skin hooks
- B. Traction sutures
- C. Vein retractors
- D. Forceps

391. Which of the following lasers is used to destroy the lens capsule during cataract surgery?

- A. Krypton
- B. Excimer
- C. Ruby
- D. YAG

392. Which of the following ophthalmic medications is injected into the anterior chamber during a cataract procedure to aid in keeping the iris in position prior to inserting the lens prosthesis?

- A. Hyaluronidase
- B. Atropine sulfate
- C. Acetylcholine chloride
- D. Sodium hyaluronate

393. The mechanical strength of a weak eye muscle due to strabismus in a pediatric patient can be corrected by all of the following EXCEPT:

- A. Tucking
- B. Advancement
- C. Recession
- D. Resection

394. A chalazion is a chronic inflammation of the:

- A. Lacrimal gland
- B. Meibomian gland
- C. Eyelid
- D. Conjunctiva

395. Which procedure is done for chronic dacryocystitis?

- A. Extirpation
- B. Lacrimal duct probing
- C. Myectomy
- D. Dacryocystorhinostomy

396. A procedure to treat retinal detachment is:

- A. Scleral buckling
- B. Trabeculectomy
- C. Goniotomy
- D. Vitrectomy

397. Which of the following involves small, corneal incisions as treatment for myopia?

- A. Laser peripheral iridectomy
- B. Radical keratotomy
- C. Vitreoretinal surgery
- D. Cataract surgery

ENT Surgery

398. When performing a tympanoplasty, the graft is secured to the oval window when:
- A. Reconstruction extends to the malleus
 - B. The malleus and incus are missing
 - C. The footplate of the stapes cannot move
 - D. All of the ossicles are missing
399. Which incision is indicated for an esophagogastrectomy?
- A. Left paramedian
 - B. Lower vertical midline
 - C. Thoracoabdominal
 - D. Sternotomy
400. Which is an alternate procedure to stapedectomy?
- A. Stapedotomy
 - B. Myringoplasty
 - C. Tympanoplasty
 - D. Myringotomy
401. Which of the following structures that travel through the temporal bone must be identified and preserved when performing a mastoidectomy?
- A. Mastoid sinus, facial nerve
 - B. Ethmoidal sinus, nasociliary nerve
 - C. Maxillary sinus, nasopalatine nerve
 - D. Paranasal sinus, palatine nerve
402. The term epistaxis means:
- A. Sinusitis
 - B. Rhinitis
 - C. Nasal bleeding
 - D. Fractured septum
403. Chronic otitis media can lead to loss of hearing. In the early stages, the patient can be helped by:
- A. Stapedectomy
 - B. Myringotomy
 - C. Mastoidectomy
 - D. Tympanoplasty
404. Which nerve must be preserved to prevent muscle weakness during a parotidectomy?
- A. Vagus
 - B. Hypoglossal
 - C. Accessory
 - D. Facial

Oral and Maxillofacial Surgery

405. Which of the following incisions allows for optimal exposure of frontal sinus fractures?
- A. Rhinoplasty
 - B. Palatoplasty
 - C. Rhytidectomy
 - D. Coronal
406. Which nerve that innervates the muscles around the chin must be protected from injury when repairing a fracture of the mandible?
- A. Inferior mandibular
 - B. Inferior masseteric
 - C. Marginal masseteric
 - D. Marginal mandibular
407. Which branch of the trigeminal nerve must be identified and preserved when performing a submandibular gland removal?
- A. Hypoglossal
 - B. Accessory
 - C. Lingual
 - D. Facial
408. Prior to plating a mandibular fracture, what should be applied to ensure proper occlusion of the teeth?
- A. Arch bars
 - B. Tooth guard
 - C. Orthodontic bars
 - D. Bite block
409. What should be sent postoperatively with the patient who has arch bars applied?
- A. Bulb suction
 - B. Emesis basin
 - C. Wire scissors
 - D. Nasogastric tube

Plastic and Reconstructive Surgery

410. A patient is being evaluated for undergoing a breast reconstruction procedure and indicates she still smokes. Which of the following procedures would the surgical assistant recommend?
- TRAM single flap
 - Free gluteal flap
 - Latissimus dorsi myocutaneous flap
 - Free TRAM flap
411. A common autologous donor site for a free flap graft for replacing the jaw bone is the:
- Fibula
 - Tibia
 - Iliac
 - Rib
412. When possible during a plastic surgery procedure, incisions should be placed:
- Over weight-bearing surfaces
 - Parallel to the long axis of the underlying muscle
 - Perpendicular to the long axis of the underlying muscle
 - Opposite of Langer's lines
413. Sutures from the ear may be removed after:
- 10-14 days
 - 14-18 days
 - 18-22 days
 - 22-26 days
414. Reasons for skin graft failure include:
- Hematoma
 - Inosculation
 - Graft mobility
 - Imbibition
415. Cleft lip repair is usually recommended at:
- 3 months
 - 5 months
 - 7 months
 - 9 months
416. Which of the following congenital anomalies limits the skull's volume and increases the intracranial pressure?
- Hemifacial microsomia
 - Craniosynostosis
 - Torticollis
 - Midface hypoplasia

Genitourinary Surgery

417. Which of the following statements is correct concerning the handling of renal calculi?
- Placed in formalin as a preservative
 - Analyzed for culture and sensitivity
 - Always sent for frozen section
 - Kept dry to avoid interference with chemical analysis
418. Which of the following types of fistulas refers to leakage of urine into the vagina?
- Ureterovaginal
 - Cystocele
 - Vesicovaginal
 - Rectovaginal
419. When performing a radical cystectomy with ileal conduit, which of the following is an alternative patient position that a surgeon may prefer?
- Lateral kidney
 - Low lithotomy
 - Semi-Fowler's
 - Trendelenburg
420. A staghorn stone is one that lodges and continues to grow in the:
- Renal calyx
 - Space of Retzius
 - Ureter
 - Renal Hilum
421. Which of the following solutions is used during a diagnostic cystoscopy?
- Distilled water
 - Glycine
 - Mannitol
 - Sorbitol
422. Which of the following is NOT considered a permanent urinary diversion?
- Ileal conduit
 - Ureterocystostomy
 - Cutaneous ureterostomy
 - Nephrostomy
423. A radical lymphadenectomy is performed to treat cancer of the:
- Kidney
 - Stomach
 - Prostate
 - Testicles

424. A transplanted kidney is placed into the:
A. Retroperitoneal space
B. Flank area
C. Superior bladder area
D. Iliac fossa

425. The bladder is supported by the rectovesical fascia called:
A. Monroe
B. Cline
C. Winslow
D. Denonvilliers

426. Which of the following is the surgical treatment of vesicoureteral reflux?
A. Placement of a stent
B. Segmental cystectomy
C. Cutaneous ureterostomy
D. Ureteral reimplantation

427. What is the fornix in the kidney organ?
A. Edge of the minor calyces
B. Refers to the hilum of the organ
C. Inner layer of the renal capsule
D. Apex of a renal pyramid

428. Which of the following is not a complication of a transurethral prostatectomy?
A. Extravasation of irrigation fluid
B. Bladder perforation
C. Urethral injury
D. Rectal injury

429. The fascia surrounding the kidney is called:
A. Scarpa's
B. Rectus
C. Gerota's
D. Transversalis

430. The donor left kidney is preferred in order to procure additional length of the:
A. Artery
B. Vein
C. Ureter
D. Nephron

431. Which of the following affect renal vascular resistance?
A. Mannitol
B. Glucose
C. Dexamethasone sodium phosphate
D. Thiazidiazine

432. A patient who has undergone a right-side herniorrhaphy presents 2-5 days postoperatively with swollen and tender testis. Which of the following complications is most likely occurring?
A. Hernia recurrence
B. Ilioinguinal nerve injury
C. Ischemic orchitis
D. Vas deferens injury

433. The kidney lift should be situated directly below which of the following when positioning a patient for a nephrectomy?
A. Twelfth rib
B. Iliac crest
C. Lesser trochanter
D. Scapula

434. Which vein, in addition to the gonadal and lumbar, should be clamped and ligated when performing a left kidney procurement?
A. Adrenal
B. Splenic
C. Gastric
D. Pancreatic

Orthopedics

435. Which of the following nerves can be injured during a lateral lower leg fasciotomy?
A. Superficial peroneal
B. Sciatic
C. Tibial
D. Femoral

436. The most reliable tendon graft for primary reconstruction of the anterior cruciate ligament is:
A. Palmaris
B. Achilles
C. Patellar
D. Plantaris

437. The type of fracture that is caused by impaction of one bone upon another is:
A. Compression
B. Segmental
C. Spiral
D. Oblique

438. Which of the following can be a cause of locking of the knee joint?
A. Tibial fracture
B. Osteochondral defects
C. Osteosarcoma
D. Osteomalacia

439. Which of the following types of fractures is at the greatest risk for infection?
- Greenstick fracture
 - Open fracture
 - Stress fracture
 - Closed fracture
440. The trauma patient with a cervical spine injury at or near C3 to C5 is at great risk for:
- Respiratory difficulties
 - Facial palsy
 - Hearing loss
 - Loss of vision
441. Which of the following nerves is affected by carpal tunnel syndrome?
- Hypoglossal
 - Radial
 - Ulnar
 - Median
442. An injury to the long thoracic nerve could cause:
- Clawhand
 - Numb area on radial side on dorsum of hand
 - Chronic lower back pain
 - Winged scapula
443. An injury to the ulnar nerve could cause:
- Carpal tunnel syndrome
 - Paralysis
 - Claw hand
 - Wrist drop
444. During a triple arthrodesis, the capsule of the talonavicular, calcaneocuboid and subtalar joints are circumferentially incised to:
- Allow complete removal of the bones.
 - Allow placement of the silastic implant.
 - Gain as much ankle joint mobility as possible.
 - Prevent valgus deformity.
445. Which muscle is an important anatomical landmark in fractures of the forearm?
- Flexor pollicis longus muscle
 - Flexor digitorum
 - Pronator teres
 - Supinator brevis
446. Which of the following fractures is caused by falling on the back of the hand with the wrist flexed, also called a reverse Colles' fracture?
- Smith's
 - Barton
 - Torus
 - Pott's
447. Which of the following carpal bones is fractured most frequently?
- Lunate
 - Trapezoid
 - Navicular
 - Scaphoid
448. Which of the following metacarpals is most commonly fractured when associated with a "boxer's fracture?"
- Fifth
 - Fourth
 - Third
 - Second
449. Which of the following disorders is characterized by compression of the abductor pollicis longus and extensor pollicis brevis tendon near the radial styloid process?
- Carpal tunnel
 - De Quervain's
 - Dupuytren's
 - Trigger finger
450. The most frequent site of cartilage tears in the knee joint is the:
- Collateral ligament
 - Cruciate ligament
 - Lateral meniscus
 - Medial meniscus
451. Which of the following statements concerning the Bankart procedure is correct?
- Anterior capsule is reattached to rim of the glenoid
 - Glenoid is reattached to the cuff
 - Lateral advancement of the subscapularis is accomplished
 - Coracoid process is detached and inserted onto the neck of the glenoid cavity
452. Which fracture is most commonly associated with a fat embolism?
- Femur
 - Pelvic
 - Ulna
 - Radius
453. Which nerve is at risk for injury in a humerus shaft fracture?
- Ulnar
 - Radial
 - Median
 - Brachial

454. What is a Monteggia fracture?

- A. Distal radius plus ulna
- B. Spiral fracture of the femoral shaft
- C. Fracture of the proximal third of the ulna with radial dislocation
- D. Fracture of the surgical neck of the humerus

455. Which of the following nerves is compressed in carpal tunnel syndrome?

- A. Radial
- B. Median
- C. Ulnar
- D. Interosseous

456. Under which structure is the nerve trapped in carpal tunnel syndrome?

- A. Scaphoid carpal bone
- B. Ulna ligament
- C. Transverse carpal ligament
- D. Radius

457. Which of the following movements of the upper extremity would be most painful if tendinitis of the supraspinatus muscle is present?

- A. Abduction of the shoulder
- B. Internal rotation of the humerus
- C. Adduction of the shoulder
- D. External rotation of the humerus

458. The border of the acetabular fossa of the hip joint that is deficient forming a C-shaped fossa that creates a gap is bridged by the:

- A. Inguinal ligament
- B. Transverse ligament
- C. Labrum ligament
- D. Pelvic ligament

459. Which of the following is a fibrocartilage structure of the acetabular fossa that encloses the head of the femur?

- A. Labrum
- B. Joint
- C. Fossa
- D. Ligament

460. Following an injury to the lower limb, your patient's knee is evaluated. His leg can easily be displaced anteriorly on a fixed thigh. This would indicate a torn:

- A. Posterior cruciate ligament
- B. Tibial (medial) collateral ligament
- C. Fibular (lateral) collateral ligament
- D. Anterior cruciate ligament

461. Which of the following nerves is at risk for injury when a humeral shaft fracture occurs?

- A. Median nerve
- B. Radial nerve
- C. Ulnar nerve
- D. Musculocutaneous nerve

462. Which of the following is *not* a carpal bone?

- A. Scaphoid bone
- B. Hamate bone
- C. Cuboid bone
- D. Triquetrum

463. Which of the following is the best indicator for possible failure of a below-the-knee amputation to heal?

- A. Patient complains of numbness in the amputated leg
- B. Absence of a popliteal artery pulse when palpated
- C. Chronic hypotension
- D. Cardiac dysrhythmias

464. A laceration or avulsion of the extensor tendon at the proximal phalanx or proximal interphalangeal (PIP) joint is called a:

- A. Mallet finger
- B. Drop finger
- C. Boutonniere deformity
- D. Swan-neck deformity

465. The distal tibia articulates with which of the following structures?

- A. Femur
- B. Cuboid
- C. Talus
- D. Humerus

466. The narrow rim of fibrocartilage around the edge of the glenoid cavity is:

- A. Articular capsule
- B. Bursae sac
- C. Glenohumeral ligament
- D. Glenoid labrum

467. The superior margin of the hip bone is called the:

- A. Mons pubis
- B. Pubic tubercle
- C. Iliac crest
- D. Greater tubercle

468. The patellar ligament is attached proximally to the patella and distally to which structure?

- A. Tibialis anterior
- B. Tibial tuberosity
- C. Medial malleolus
- D. Vastus medialis

469. Which tendon is located under the clavicle and is the site of most rotator cuff repairs?

- A. Infraspinatus
- B. Supraspinatus
- C. Teres Minor
- D. Subscapularis

470. Which knee ligament prevents the femur from sliding posteriorly on the tibia and is the usual site for knee ligament reconstruction?

- A. LCL
- B. MCL
- C. ACL
- D. PCL

471. Which of the following nerves is most frequently injured due to a shoulder dislocation?

- A. Axillary
- B. Long thoracic
- C. Thoracodorsal
- D. Suprascapular

472. Which of the following diagnostic imaging techniques is used to aid in diagnosing a rotator cuff tear?

- A. MRI
- B. Plain radiographic
- C. Myelography
- D. CT

473. Which of the following is a complication of internal K-wire fixation of a Colles' fracture?

- A. Bone union
- B. Osteogenesis
- C. Nerve damage
- D. Osteoblast formation

474. Which of the following structures may be used for replacement of the ligament during an ACL repair?

- A. Lateral collateral ligament
- B. Medial collateral ligament
- C. Quadriceps tendon
- D. Patellar tendon

475. When performing a cannulated screw fixation for nondisplaced femoral neck fractures, compression of the:

- A. Posterior screws is completed first
- B. Guide pins is completed first
- C. Anterior screws is completed first
- D. K-wires is completed first

Cardiothoracic Surgery

476. Which of the following lymph nodes must be removed and histologically examined when performing a segmental pulmonary resection for lung cancer?

- A. Cervical
- B. Tracheobronchial
- C. Lobar
- D. Preaortic

477. In severe aortic stenosis, all of the following are indications for valve replacement EXCEPT:

- A. Palpitations
- B. Congestive heart failure
- C. Angina
- D. Syncope

478. What is the most common cause of mitral stenosis?

- A. Congenital
- B. Trauma
- C. Rheumatic fever
- D. Bacterial endocarditis

479. The wound classification of a thoracotomy is:

- A. Clean wound
- B. Clean-contaminated wound
- C. Contaminated wound
- D. Dirty or infected wound

480. Plication of the inferior vena cava or insertion of an umbrella-type filter is performed to treat:

- A. Pulmonary embolus
- B. Right ventricular failure
- C. Femoral artery embolus
- D. Left atrial flutter

481. The most common congenital defect of the heart is a:

- A. Ventricular septal defect
- B. Coronary artery disease
- C. Pulmonary stenosis
- D. Patent ductus arteriosus

482. A needle biopsy of the lung may be accomplished with a:

- A. Franklin-Silverman
- B. Dorsey
- C. Tru-cut
- D. Chiba

483. Which one of the following statements about the heart is INCORRECT?
- A. Aortic valve sounds can best be heard over the right second intercostal space.
 - B. Most cardiac veins drain into the coronary sinus.
 - C. Blood passes through the bicuspid (mitral) valve when it flows from the right atrium to the right ventricle.
 - D. The fossa ovale is the site of the former, embryonic shunt from the right atrium to the left atrium.

484. Cardioplegia induces cardiac:
- A. Dysrhythmia
 - B. Output
 - C. Arrhythmia
 - D. Arrest

485. When the myocardium weakens and enlarges, losing the ability to pump blood into the systemic circulation, the resulting condition is called:
- A. Pericarditis
 - B. Congestive pulmonary disease
 - C. Heart failure
 - D. Angina pectoris

486. Insufficient blood flow to the heart muscle may lead to:
- A. Ventricular septal defect
 - B. Mitral valve prolapse
 - C. Transient ischemic attack
 - D. Myocardial infarction

487. Which vessels are typically utilized for a coronary artery bypass?
- A. Pulmonary vein and external mammary vein
 - B. Portal vein and hepatic artery
 - C. Saphenous vein and internal mammary artery
 - D. Pulmonary artery and pulmonary vein

Peripheral Vascular Surgery

488. When performing a high ligation and stripping of the great saphenous vein, which of the following arteries is located at the saphenofemoral junction and should be kept from injury?
- A. Superficial external pudendal
 - B. Posteromedial
 - C. Popliteal
 - D. Lateral femoral

489. In which procedure would a Fogarty catheter be utilized?
- A. Thoracoscopy
 - B. Endarterectomy
 - C. Vein stripping
 - D. Embolectomy

490. What is the purpose for the surgical creation of an arteriovenous fistula?
- A. Hemodialysis
 - B. Insertion of Greenfield filter
 - C. Peritoneal dialysis
 - D. Placement of Javid shunt

491. When performing an open AAA, which artery or arteries are cross-clamped prior to cross-clamping the aorta?
- A. Splenic
 - B. Inferior mesenteric
 - C. Renal
 - D. Iliac

492. Which of the following cranial nerves is at risk for injury during a carotid endarterectomy?
- A. Olfactory
 - B. Trochlear
 - C. Abducens
 - D. Hypoglossal

493. During a vascular procedure, monitoring the activated clotting time intraoperatively provides useful data for judging the need for reversal or addition of:
- A. Digitoxin
 - B. Papaverine
 - C. Heparin
 - D. Vasopressin

494. Deep vein thrombosis occurs most commonly in the:
- A. Right iliac vein
 - B. Lumbar vein
 - C. Femoral vein
 - D. Left iliac vein

495. Which of the following may be requested during an emergency femoral embolectomy?
- A. Arteriograms
 - B. Protamine sulfate
 - C. Use of thrombolytic agents
 - D. Doppler angiography

496. Which of the following is applied topically to arteries for prevention of vasoconstriction?
- A. Papaverine
 - B. Epinephrine
 - C. Pitocin®
 - D. Heparin

497. During a carotid endarterectomy, which of the following arteries is initially incised?

- A. Common carotid
- B. Internal carotid
- C. Subclavian
- D. Occipital

498. Which of the following is NOT a layer of an artery?

- A. Tunica media
- B. Tunica intima
- C. Tunica adventitia
- D. Tunica muscularis

Neurosurgery

499. Meningiomas are benign tumors that originate in the:

- A. Mid brain
- B. Dura
- C. Pituitary gland
- D. Spinal cord

500. A potential complication that can occur when the patient is undergoing an occipital craniotomy while in Fowler's position is:

- A. Hypotension
- B. Air embolism
- C. Arterial ischemia
- D. Corneal abrasions

501. Incomplete closure of paired vertebral arches that can be treated surgically is known as:

- A. Spina bifida
- B. Pectus excavatum
- C. Spastic palsy
- D. Encephalocele

502. Which of the following could occur when a posterior fossa craniotomy is performed with the patient in a sitting position?

- A. Collapse of the femoral vein
- B. Pressure sores on the patient's back
- C. Fibrinolysis
- D. Venous air embolism

503. Which of the following arteries could be injured if the screws for an anterior cervical discectomy are placed laterally rather than straight or at a medial angle?

- A. Subclavian
- B. Internal thoracic
- C. Ascending cervical
- D. Vertebral

504. To prevent the plates, screws and rods from breaking when performing a spinal fusion, bone graft is needed to fuse to:

- A. Bone
- B. Tendon
- C. Ligaments
- D. Muscle

505. Which of the following hemostatic agents is most frequently used during a spinal fusion?

- A. Gelfoam
- B. Thrombin
- C. Heparin
- D. Vancomycin

506. The center structure of the intervertebral disc, which may herniate into the spinal nerve, is the:

- A. Annulus fibrosus
- B. Nucleus pulposus
- C. Spinous process
- D. Superior demifacet

507. A ventriculoperitoneal shunt is used to:

- A. Treat hydrocephalus
- B. Treat esophageal varices
- C. Access vessels for dialysis
- D. Provide access site for total parenteral nutrition

508. Which of the following is usually caused by an injury to the middle meningeal artery?

- A. Epidural hematoma
- B. Intracerebral hematoma
- C. Subdural hematoma
- D. Cerebral aneurysm

APPENDIX A

Recommended Topics for Review¹

I. Perioperative Patient Care

A. Preoperative Preparation

1. Interpretation of diagnostic results (eg lab values, radiologic results, pathologic results)
2. Patient transfer principles and modes of transportation
3. Urinary catheterization techniques (eg signs of complications, anatomy)
4. Patient positioning principles
5. Draping principles and materials (eg disposables, linen)
6. Skin preparation principles
7. Legal and ethical aspects of surgery (eg surgical consents' limitations, negligence, patient rights)
8. Surgical conscience (eg disclosure of breaks in sterile techniques, inappropriate behavior)
9. Patient needs (eg pediatrics, psychological needs)
10. Preoperative documentation (eg history and physical, surgical checklist)
11. Surgical scrub principles
12. Donning sterile gown and gloves
13. Patient interviewing techniques
14. Operating room physical environment (eg layout traffic patterns, humidity, temperature, furniture)
15. Personal protect equipment and attire
16. Principles and methods of opening sterile supplies

B. Intraoperative and Postoperative Procedures

1. Patient emergency and safety procedures
2. Interpretation of patient monitoring results (eg blood pressure, EKG, oxygen content)
3. Operating room records
4. Instrument classification, functions and usability
5. Methods of operative exposure
6. Methods of hemostasis (eg mechanical, thermal, chemical)
7. Stapling and suturing materials and techniques
8. Thermal surgical techniques and safety (eg cryosurgery, laser surgery, ESU)
9. Radiologic surgical techniques and safety
10. Laparoscopic surgical techniques and safety
11. Ultrasonic surgical techniques and safety (eg CUSA, harmonic scalpel, phaco)
12. Standard precautions and exposure(s) protocol
13. Safety and environmental hazards (eg fire, chemical spill, laser smoke)
14. Types and uses of supplies (eg drains, catheters, dressings)
15. Surgical implants
16. Types of surgical equipment (eg electro-surgical units, endoscopes, lasers)
17. Surgical procedures and sequences
18. Care and handling of specimen(s)
19. Handling procedures for blood and waste products
20. Counting procedures
21. Postoperative clean-up procedures

II. Ancillary Functions

A. Materials Management, Sterilization, Other

1. Case specific availability of supplies and equipment
2. Principles and methods of sterilization and disinfection
3. Principles and methods of packaging
4. Care and handling of instruments
5. Disaster plan protocol
6. Equipment maintenance procedures and troubleshooting techniques

7. Medical technological advances and new products
8. Electronic technology and safety (eg endoscopic equipment, video equipment, robotics)

III. Basic Science

A. Anatomy and Physiology

1. Medical terminology and abbreviations
2. Anatomy and physiology
3. Surgical pathology (eg fractures, malignancy, abnormal anatomy)

B. Microbiology

1. Biology and microbiology (eg classification, pathogenesis)
2. Stages of wound healing
3. Surgical wound classification
4. Factors influencing wound healing (eg condition of patient, wound type)
5. Principles of tissue handling (eg Halsted principles, tissue manipulation methods, traction/countertraction)
6. Infection control procedures (eg aseptic technique)

C. Surgical Pharmacology

1. Blood and fluid replacement
2. Weights and measures
3. Types, uses, actions, and interactions of drugs and solutions (eg hemostatic agents, antibiotics, IV solutions)
4. Methods of anesthesia administration (eg general, local, block)
5. Anesthesia-related agents and medications
6. Complications from drug interactions (eg malignant hyperthermia)

1. Reprinted from *Job Analysis for Certified Surgical Technologist and Certified First Assistant*. Liaison Council on Certification for the Surgical Technologist.