



The American Board of Surgical Assistants

Certification Examination Review Guide

“ 30 Years of Excellence to the Surgical Community ”

Along with your medical training, this review guide will provide you with a good knowledge base for the examination; however, it may not be all-inclusive.

The questions included in this review guide are not the exact questions you will see on the examination, however, the information is similar.

There is more information presented than you should need.

The examination is designed to be passed. We will not try to trick you or lead you in the wrong direction. There are no penalties for guessing. Use your best judgment regarding preparation for the examination.

Examination Outline

The ABSA Certification Examination for Surgical Assistants is comprised of three separate and independent sections:

1. A 150 question multiple-choice written examination
2. A 20 question multiple-choice surgical instrumentation examination section
3. A practical examination (suturing and tying, administered at the testing center)

The written Examination:

The written portion of the examination consists of 180 multiple-choice questions. The questions are delivered generally from the following outline:

1. General Surgery

A. Surgical Anatomy

a. Abdomen

- Abdominal Walls
- Esophago-gastrointestinal Tract
- Gallbladder
- Liver
- Spleen
- Surgical Considerations
- Blood Supply to Gut
- Great Vessels

b. Pelvis

- Muscles
- Vascular Structures
- Ureters

c. Thorax

- Breasts
- Ribs & Muscles
- Lungs
- Mediastinum
- Sympathetic Chain

B. Surgical Procedures

- a. Cholecystectomy
- b. Gastrectomy
- c. Appendectomy
- d. Hernia Repairs

C. Surgical & Procedural Terminology

2. Gynecological Surgery

A. Surgical Anatomy

- a. Uterus & Adnexa
- b. Placenta
- c. Vagina

B. Surgical procedures

- a. Abdominal Hysterectomy
- b. Caesarian Section

C. Surgical & Procedural Terminology

3. Urological Surgery

- A. Surgical Anatomy**
 - a. Kidneys & Ureters
 - b. Bladder
 - c. Prostate
 - d. External Genitalia (male & female)
- B. Surgical Procedures**
 - a. Bladder Catheterization
 - b. Bladder Suspensions
 - c. Nephrectomy
 - d. Renal Transplantation
- C. Surgical & Procedural Terminology**

4. Cardio-thoracic Surgery

- A. Surgical Anatomy**
 - a. Sternum
 - b. Diaphragm
 - c. Heart
 - Coronary Arteries
 - Valves
 - Congenital Defects
- B. Cardiac Equipment (general knowledge of function)**
 - a. Heart-Lung Machine & Cardiac Cannulation
 - b. Cell Saver
 - c. Intra-aortic Balloon Pump
 - d. Defibrillator
 - e. External Pacemaker
- C. Surgical Procedures**
 - a. Mitral & Aortic Valve Replacement
 - b. Coronary Artery Bypass Graft
- D. Surgical & Procedural Terminology**

5. Orthopedic Surgery

- A. Surgical Anatomy**
 - a. Superior Extremities
 - Shoulder
 - Elbow
 - Forearm
 - Wrist
 - Hand
 - b. Inferior Extremities
 - Hip
 - Knee
 - c. Fractures
 - Long Bone
 - Hip
 - Wrist
- B. Surgical Procedures**
 - a. Total Hip Replacement
 - b. Total Knee Replacement
 - c. ACL Reconstruction
- C. Surgical Procedures**

6. Neurological Surgery

- A. Surgical Anatomy**
 - a. Head
 - Skull
 - Brain
 - Cranial Nerves
 - b. Vertebral Column
 - Cervical Spine
 - Thoracic Spine
 - Lumbar Spine
 - Sacrum & Coccyx
 - c. Spinal Cord
 - Nerve Roots
 - Dermatomes
- B. Surgical Procedures**
 - a. Anterior Cervical Discectomy
 - b. Lumbar Laminectomy
- C. Surgical & Procedural Terminology**

7. EKG Interpretation

- A. Normal Sinus Rhythm**
- B. Atrial Arrhythmias**
 - a. Sinus Bradycardia
 - b. Sinus Tachycardia
 - c. Sinus Arrhythmia
 - d. Atrial Fibrillation
- C. Ventricular Arrhythmias**
 - a. Ventricular Tachycardia
 - b. Premature Ventricular Contractions
 - c. Ventricular Fibrillation

8. Laboratory Data

- A. Normal Values**
 - a. Serum Electrolytes
 - b. Arterial Blood Gas
 - c. Complete Blood Count (CBC)
 - d. Urinalysis
- B. Critical Values**
 - a. Serum Potassium
 - b. Oxygen Saturation

9. Radiological Interpretations

- A. X-Ray**
 - a. Hip
 - b. Wrist
 - c. Intra-operative Cholangiograms
- B. MRI**
 - a. Brain
 - b. Cervical Spine
 - c. Lumbar Spine
 - d. Shoulder
 - e. Hip
 - f. Knee

10. Microbiology

- A.** Asepsis & Infection Control
- B.** Hepatitis, HIV/AIDS
- C.** Wound Healing
- D.** Sterilization Techniques
 - a. High-Speed Steam Sterilization
 - b. Cold Sterilization (Liquid)

11. Pharmacology

- A.** Antibiotics
 - a. Bacitracin
 - b. Ancef (cefazolin)
- B.** Local Anesthetics
 - a. Lidocaine
 - b. Marcaine
- C.** Coagulation/Anticoagulation Drugs
 - a. Heparin
 - b. Protamine
 - c. Thrombin
- D.** Miscellaneous Pharmacological Items
 - a. Normal Saline Solution
 - b. Dantrolene
 - c. Epinephrine

12. General Operating Room Knowledge

- A.** Patient Safety
 - a. Moving & Positioning
 - b. Restraint
 - c. Transportation
 - d. Psychological
- B.** General Operating Room Equipment
 - a. Electrocautery Devices
 - b. Suctions
 - c. Warming Blankets
- C.** OSHA Regulations & Personal Safety
 - a. Personal Protection
 - Glasses
 - Gowns, Gloves & Masks
 - b. Handling of Biologicals
 - c. Fire & Safety in the Operating Room Environment
- D.** HIPPA, Government Regulations regarding Patient Information and Privacy Issues
- E.** General Patient Information
 - a. Patient Identification
 - b. General Chart Review
 - c. Operative Consents
 - d. X-ray, CT and MRI selection and display orientation

The Specialty Examination Section:

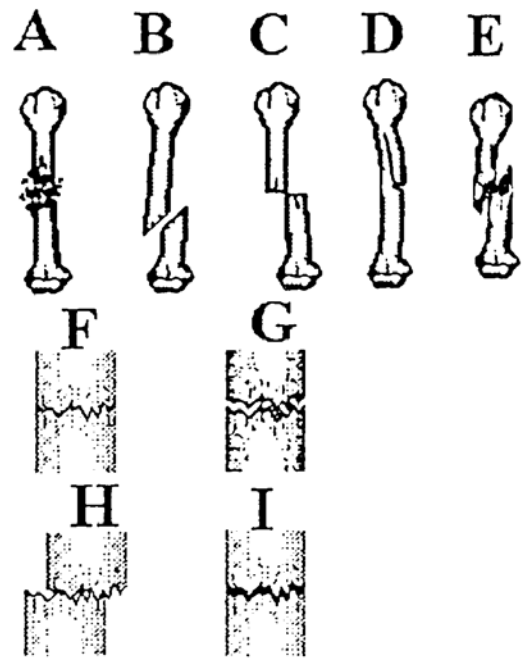
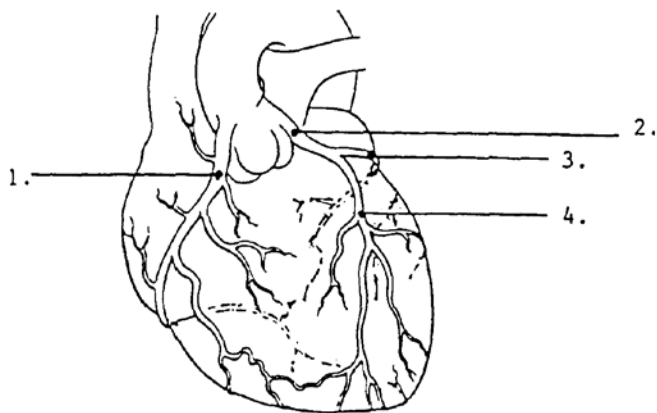
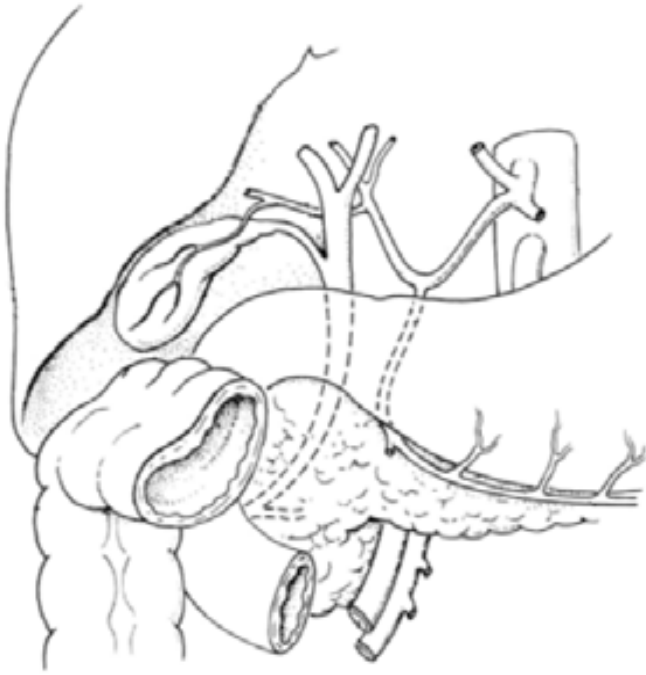
The Specialty Section of the examination further evaluates advanced knowledge of surgical practice and assisting, by requiring completion of 20 very detailed multiple-choice type questions, with respect to surgical instrumentation, identification and usage.

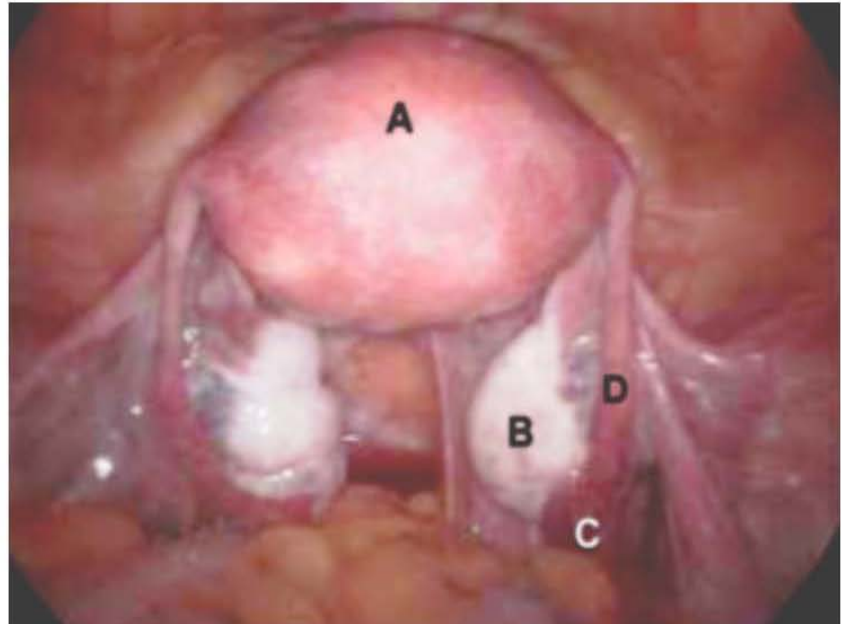
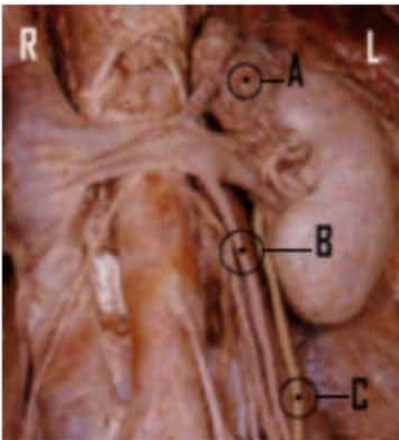
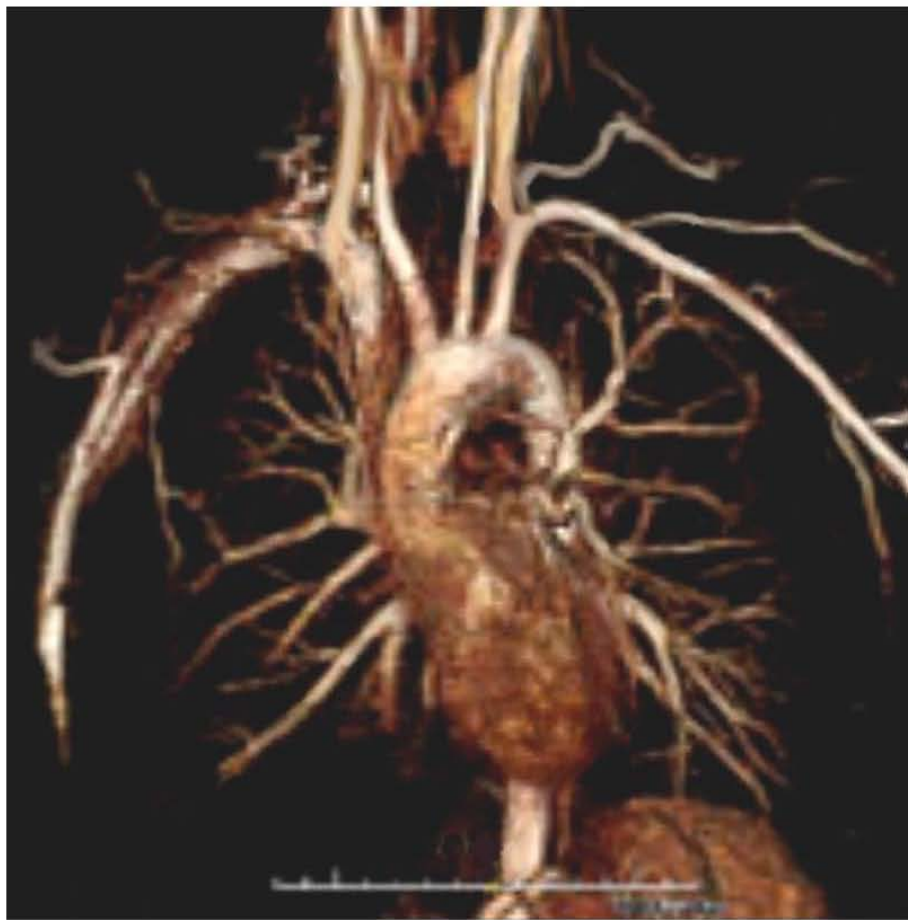
The Practical Examination:

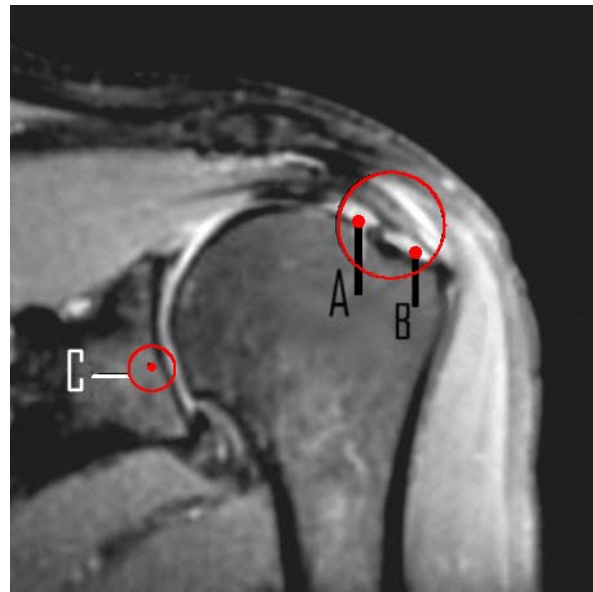
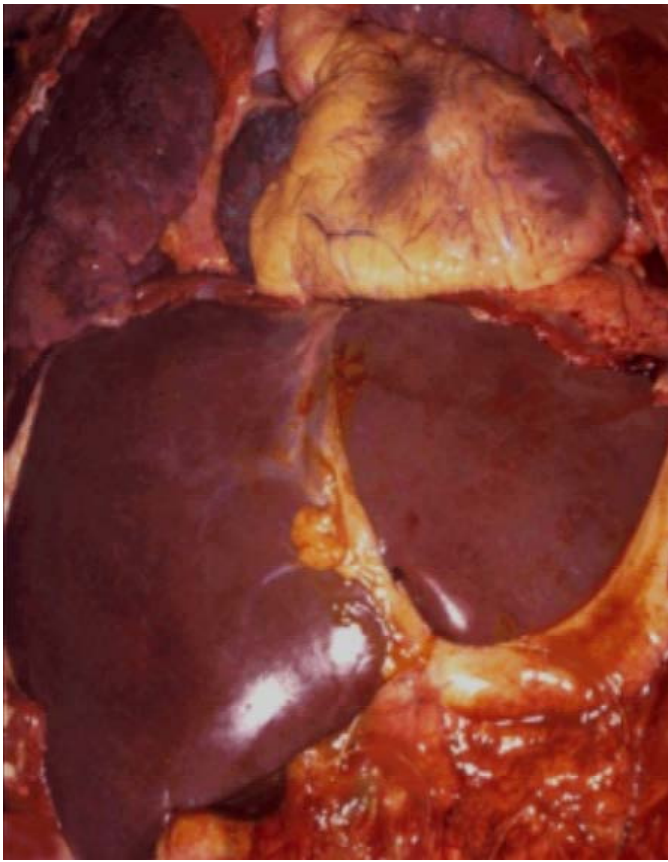
The practical portion of the examination, evaluates the candidate's ability to competently and smoothly perform tying and suturing. The following is a list of the items that are to be evaluated, at the testing center, by an ABSA designated examiner.

- A. One Handed Tying
- B. Two Handed Tying
- C. Instrument Tying
- D. Deep Tying
- E. Tying Under Tension
- F. Surgeons Knot
- G. Figure-of Eight Stitch
- H. Simple Running Stitch
- I. Mattress Stitch
- J. Running Subcuticular Stitch

Know the following graphics well, as they are the exact ones you may see on the examination.









THE ELECTROCARDIO GUIDE

a series of representative drawings of electrocardiograms designed to help physicians identify deviations from normal.

Presented as a service to medicine by

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SINUS BRADYCARDIA

Sinus rhythm with rates below 60 beats per minute



SINUS TACHYCARDIA

Sinus rhythm with rates above 100 beats per minute and below 160 (adult)



SINUS ARRHYTHMIA

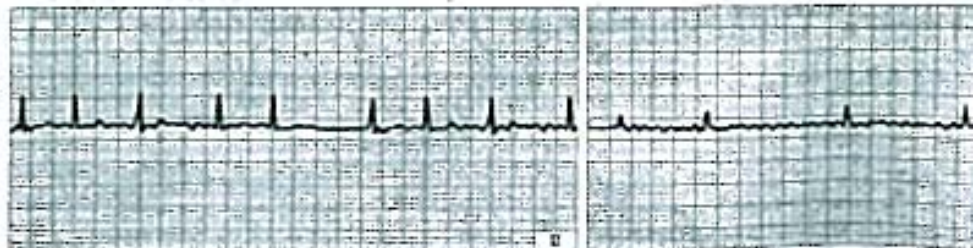
Slowing of the rate occurs during the expiratory phase of respiration

P-R interval constant
 R-R interval variable



ATRIAL FIBRILLATION

Asynchronous atrial contractions
 Rapid, irregular f waves
 Totally irregular ventricular response



Principles of Aseptic Technique I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. Which is not considered part of a sterile field?

- A. Draped table only at table level
- B. Gown from waist to shoulders in front, and the sleeves
- C. Gloves of sterile person who has folded his arms
- D. Only the center of a sterile wrapper

Ref. 1- p.95; Ref. 2 - pp. 40, 41

2. The presence of only one living microorganism means an object is:

- A. Aseptic
- B. Sanitized
- C. Disinfected
- D. Contaminated

Ref. 5 – Sec .3, p .10

3. Which statement concerning masks is not true?

- A. Air must filter through the mask, not escape around it
- B. As the mask becomes moist, filtration effectiveness decreases
- C. Ties may be tied crisscross on top of head\
- D. Ties must be tied one on top and one behind

Ref. 4 - p. 14

4. In draping a table, the scrub nurse drapes from _____ to _____, protecting her gloves _____.

- A. Back, front, with sterile towel
- B. Front, back, by cuffing drape edge
- C. Front, back, by double gloving
- D. Side, side, by cuffing drape edge

Ref. 2 – p .43

5. The purpose of the hand scrub by the surgical team is to render their skin:

- A. Sterile
- B. Sanitized
- C. Disinfected
- D. Surgically clean

Ref. 3 - p. 96; Ref. 5 -Sec. 3 - p. 19

6. After steam sterilization, which items should not be considered sterile?

- A. Suction tips attached to tubing
- B. Asepto syringes with bulbs attached
- C. Cautery tips bound with rubber bands
- D. All of the above

Ref. 2 - p. 28

7. Because there is less chance of contamination, the preferred method of gloving is _____. For changing only a glove during a case, this method _____ be used.

- A. Open, can
- B. Closed, can
- C. Open, cannot
- D. Closed, cannot

Ref. 2 - p. 58, ref. 3 p. 98

8. Which directive for loading a pressure steam sterilizer is incorrect?

- A. Place all linen packs on edge
- B. Load liquids first to prevent spillage on packs
- C. Place uncovered canisters on sides
- D. Load mesh bottom instrument trays flat

Ref. 2 - p. 29; Ref. 3 - p. 51

9. Which statement is not true?

- A. If in doubt about sterility of anything, consider it not sterile
- B. The inside of wrapper edges are sterile
- C. Sterile persons must avoid leaning over unsterile areas
- D. A sterile person turns his back to an unsterile area when passing it

Ref. 2 - pp. 40, 41

10. If the prep site contains a colostomy or draining sinus which cannot be sealed off, it should be scrubbed:

- A. Last with sponges used once and discarded
- B. First with separate prep tray
- C. First with same prep area
- D. Along with the prep site

Ref. 3 - p. 110

11. Operating room floors should be flooded with _____ and _____ at the end of each _____.

- A. Germicidal
- B. Detergent germicide, wet-vacuumed, case
- C. Germicidal solution, wet-vacuumed, day
- D. Detergent germicide, mopped, day

Ref. 3 - p. 58

Principles of ASEPTIC Technique II

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

- 1. Which are the potential sources for surgical infection: 1. circulating air, 2. patient's bronchial tree, 3. scrub team's hair, 4. patient's circulating blood, 5. instruments, 6. patient's and scrub team's skin?**

- A. 1, 3, 5
- B. All but 4
- C. 1, 2, 4, 5
- D. All of the above

Ref. 1- pp. 75 - 80; Ref. 4 - pp. 35, 103

- 2. Which statement regarding the use of masks is false?**

- A. Handle masks only by the strings
- B. They should be changed between procedures
- C. Cross strings behind the head for better aeration
- D. Cloth or gauze masks are no longer acceptable for OR use

Ref. 1 - pp. 122 - 123, Ref. 5 - pp. 52 - 53, 97

- 3. The soaking of moisture through unsterile layers to sterile layers or vice versa is:**

- A. Permeation
- B. Strike-through
- C. Fall out
- D. Denaturation

Ref. 1 - p. 89; Ref. 5 - p. 58

- 4. Which statement concerning the use of boiling water as a sterilizing agent is false?**

- A. It does not sterilize instruments
- B. Spores will withstand water boiling at 212°F
- C. Minimum boiling period is 10 minutes
- D. Boiling points of water vary at different altitudes

Ref. 1 - p. 110; ref. 5 - p. 67

- 5. The OR ventilating system ensures controlled air supply: _____ air exchanges per hour are recommended for infection control and a _____ percent humidity is mandatory to suppress static electricity.**

- A. 25, 50
- B. 15, 60
- C. 20, 40
- D. 30, 30

Ref. 1- p. 115, ref. 5 - pp. 25 - 26

6. Which draping principle is false?

- A. Always cuff drape over gloved hands
- B. Discard the drape if incorrectly placed
- C. Drape far side of nonsterile table first
- D. Points of towel clip through drape are contaminated

Ref. 1 - pp. 136, 231 - 232; Ref. 3 - pp. 72 - 73

7. Which are not essential considerations in the design of an OR suite: 1. hospital size, 2. traffic control, 3. windows, 4. supply flow system, 5. top floor location, 6. central corridor?

- A. 1 and 5
- B. 3, 5, 6
- C. 2, 3, 4
- D. All of the above are essential

Ref. 1 - pp. 112 - 113; ref. 5 - pp. 21 - 28

8. Which statement regarding sterile items is false?

- A. Discard every sterile package that falls to the floor
- B. Covered sterile setups may be used later in the day
- C. Sterile packages found in nonsterile workroom may not be used
- D. Do not use any item if uncertain about sterilizer timing

Ref. 1 - p. 87; Ref. 5 - pp. 57 - 58

9. When is the open glove technique preferred over the closed glove technique?

- A. When a scrub nurse self-gloves to set up
- B. Always, as it reduces chances of contamination
- C. To change a glove during a procedure
- D. Never

Ref. 1 - pp. 128, 131, 133; Ref. 3 - p. 115

10. The first step in the decontamination process of instruments after a procedure should be:

- A. Hand scrubbing of soiled instruments
- B. Mechanical decontamination washer-sterilizer
- C. Sonic cleaning
- D. Rinsing in a detergent

Ref. 1 - pp. 154-155; ref. 2 - pp. 31, 53

11. Which antiseptic solutions are effective against both gram-negative and gram-positive microorganisms: 1. iodophors, 2. chlorhexidine gluconate, hexachlorophene, 4. alcohol?

- A. 1 and 3
- B. 1 and 2
- C. All but 4
- D. All of the above

Ref. 1 - p. 126; Ref. 5 - pp. 75-77

12. Which statement regarding sterile technique is false?

- A. Tables are sterile only at table level
- B. Contents of a sterile bottle, once opened, must be discarded
- C. Wrapper edges are considered unsterile
- D. Paper or peel-open packages are torn to expose contents

Ref. 1-pp.86-91

13. Which is (are) used to check the effectiveness of sterilizers: 1. chemical indicator, 2. biological spore strip, 3. indicator strip, 4. recording thermometer?

- A. 1 and 2
- B. All but 4
- C. Only 2
- D. All of the above

Ref. 1 - pp. 105 - 106; Ref. 3 - pp .67, 69; Ref. 5 - p. 64

14. Which statement concerning ethylene oxide sterilization is false?

- A. Gas is highly flammable and explosive in air
- B. Polyvinyl chloride wrappers are recommended
- C. All porous materials are permeated in the process
- D. It takes longer than steam sterilization

Ref. 1-pp.100-103; Ref. 5-pp.69-70

15. Predisposing factors that substantially increases the risk of infection are: 1. duration of operation, 2. invasive monitoring techniques, 3. indiscriminate use of antibiotics, 4. gastrointestinal surgery, 5. prosthetic devices.

- A. 1, 4, 5
- B. All but 3
- C. 1, 2, 4
- D. All of the above

Ref. 1-pp.76-77

16. An area of a gown considered sterile is (are) the _____, while the _____ is (are) considered unsterile.

- A. Sleeves, neck
- B. Back of wrap-around gown, axillae
- C. Shoulders, area below table level
- D. Neck, damp area

Ref. 1-p.123; Ref. 2-p.22; Ref. 5-p.55

17. Which is the major source of contamination in the operating room?

- A. Circulating air
- B. Patient's respiratory tract
- C. Patient's skin
- D. Personnel

Ref. 1-p.79; Ref. 2-p.10

18. Which is (are) not effective method (s) of disinfection in an operating room: 1. mercurial compounds, 2. iodophors, 3. fogging, 4. formaldehyde, 5. phenolic compounds?

- A. Only 1
- B. 4 and 5
- C. 1 and 3
- D. All of the above

Ref. 1-pp.108-110

19. Which statement concerning pathogenic Streptococci species of microorganism is false?

- A. Primary source is the human respiratory tract
- B. They are non-sporeformers
- C. Steam under pressure easily destroys them
- D. They are gram-negative, nonmotile organisms

Ref. 1-p.77; Ref. 4-pp.28-29

20. The preferred method of sterilization for heat-sensitive items and anesthesia equipment when EO sterilization is impractical is soaking in:

- A. Benzalkonium chloride
- B. Activated glutaraldehyde
- C. Ethyl alcohol
- D. Aqueous solution of formaldehyde

Ref. 1-pp.103, 107-110,196; Ref. 4-p.47

21. Which is considered a disadvantage in use of muslin as wrapper material for sterile packs and items?

- A. It is memory-free
- B. It must be laundered to rehydrate
- C. It can be reused
- D. Small holes can be heat sealed

Ref. 1-p.97; Ref. 2-pp.47-48

22. Which statement regarding hexachlorophene as an antiseptic solution is false?

- A. A cumulative suppressive action develops with routine use
- B. It is neutralized by alcohol
- C. It is ineffective against gram-negative organisms
- D. It is soluble in water

Ref. 1-pp.126, 223-224

23. Completely unwrapped items may be sterilized in a flash sterilizer at _____ pounds of pressure, _____ degrees F, for _____ minutes

- A. 15, 250, 5
- B. 27, 270, 3
- C. 18, 200, 10
- D. 20, 150, 8

Ref. 1-p.94; Ref. 5-pp.65-66

24. The foundation for the practice of strict aseptic and sterile technique is:

- A. A surgical conscience
- B. Patient safety
- C. Standardization of principles
- D. Infection control

Ref. 1-pp.72-73; ref. 3-pp.51-57

25. Factors that have adverse affects on the shelf life of sterile items include: 1. open cabinets, 2. high temperature, 3. dust covers, 4. extremes in humidity, 5. heat-sealed packaging.

- A. 2 and 5
- B. all but 3
- C. 1, 2, 4
- D. All of the above

Ref. 1-p.106; ref. 2-pp.50-51; Ref. 5-p.64

Electrolytes and Metabolism II

1. All of the following may cause arterial hypotension in a surgical patient except:

- A. Hypoxia
- B. Hypervolemia
- C. Transfusion reaction
- D. Malignant hyperthermia

Ref. 3 - pp. 292, 293; Ref. 6 - p. 495

2. The anesthesiologist evaluates the patient's oxygenation and carbon dioxide removal by measuring arterial: 1. pH, 2. pCO₂, 3. H₂CO₃, 4. pO₂

- A. Only 3
- B. 1, 2, 3
- C. All but 3
- D. Only 2 and 4

Ref. 3-p.293; Ref. 4-pp.333-335

3. Which statement is not true about fluids?

- A. Extracellular fluids consist of interstitial fluid and blood plasma
- B. Hypovolemia is a deficit of both water and electrolytes
- C. Lab report of a dehydrated patient shows a decrease in packed cell volume and hemoglobin
- D. Extracellular fluid volume is proportionately larger in infants than in adults

Ref. 1-pp.372, 512; Ref. 4-pp.84.87

4. The center which regulates the rhythm of respirations is located in the:

- A. Pituitary
- B. Alveoli
- C. Pons
- D. Thalamus

Ref. 1-p.313; Ref. 4-p.885

5. In surgical patients, the most common cause of shock is oligemia which is a/an:

- A. Decreased renal output
- B. Deficient circulating blood volume
- C. Expanded plasma volume
- D. Increased vasodilation

Ref. 2-p, 258; Ref. 3-pp.330, 301

6. Which of the following may cause apnea

- A. Stimulation of the pharynx by irritating chemicals
- B. Sudden cold stimulation applied to the skin
- C. Sudden painful stimulation
- D. All of the above

Ref. 1-p.313

7. Which statement is not true about the sino-atrial node?

- A. It is located in the wall of the right atrium
- B. It is the heart's pacemaker
- C. Impulses pass from it to the bundle of His
- D. It initiates atrial contractions

Ref. 1-pp.335, 336; Ref. 5-pp.7, 8

8. Oxygen is carried in the blood:

- A. As physically dissolved oxygen in plasma
- B. Through the pulmonary arteries into general circulation
- C. In combination with the hemoglobin of the red blood cells
- D. Only A and C

Ref. 1-pp.308, 309; ref. 4-pp.334, 335; ref. 5-p.17

9. After cardiovascular surgery, hypocalcemia may result from _____ and hyperkalemia may result from _____.

- A. Multiple transfusion of citrated blood, red cell breakdown from pump perfusion
- B. Increased water intake, stress due to surgery
- C. Red cell breakdown from pump perfusion, multiple transfusion of citrated blood
- D. Stress due to surgery, inadequate water intake

Ref. 4-pp.438, 439; Ref. 6-p.155

10. The basic approach to the treatment of postoperative shock is to:

- A. Administer vasodilators
- B. Restore blood volume
- C. Evaluate acid-base balance
- D. Determine the cause

Ref. 2-p.261; Ref. 4-p.198

11. An accurate index of cardiac performance is:

- A. The hematocrit
- B. An arterial blood gas
- C. Central venous pressure
- D. Blood pressure

Ref. 4-p.367; ref 6-pp.140, 143

12. Solutions whose volumes and pressures remain the same if the two solutions are separated by a membrane are:

- A. Hypertonic solutions
- B. Isotonic solutions
- C. Hypotonic solutions
- D. None of the above

Ref. 1-p.26

13. To produce inspiration, _____ pressure must be lower than _____ pressure; it must be _____ to produce expiration.

- A. Intrathoracic, atmospheric, higher
- B. Intrapleural, osmotic, lowered
- C. Atmospheric, intrapulmonic, higher
- D. Alveoli, positive, lowered.

Ref. 1-p.372; Ref. 3-p.559

14. In a two-bottle water seal suction setup for chest drainage, the first bottle provides _____ and the second provides the _____.

- A. Suction control, water seal
- B. Water seal, drainage collection
- C. Positive pressure, water seal
- D. Water seal and collects drainage, suction control

Ref. 3-p.577

15. Operating for empyema include:

- A. Thoracostomy and thoracosplasty
- B. Segmental resection and wedge resection
- C. Lobectomy and pneumonectomy
- D. Thoracoplasty and decortication of the lung

Ref. 3- p. 588

16. Following open heart surgery, drainage catheters may be inserted into;

- A. The pericardium and anterior mediastinum
- B. Either or both pleurae
- C. Neither A nor B
- D. Both A and B

Ref. 3-p.625

17. The blood component administered to patient with a clotting problem is :

- A. Packet Red Cells
- B. Fresh Frozen Plasma
- C. Serum Albumin
- D. Both A and B

Ref. 4 - p. 93; Ref. 6 - p. 110

18. Which of the following statements concerning erythrocytes (RBC) is not true?

- A. Transport oxygen and carbon dioxide
- B. Produced in utero by liver and spleen
- C. Produced only after birth in bone marrow
- D. Do not have a nucleus when normal and mature

Ref. 1-p.295-297; ref. 4-p.302

19. Which of the following statement concerning the lymphatic system is not true?

- A. It is part of the circulatory system
- B. The thoracic duct is a main lymphatic duct
- C. The system returns water and protein to blood
- D. Lymph nodes act as absorbers and diffusers

Ref. 1 - pp. 348 - 352; Ref. 4 - p. 355

20. The continuous rhythmic lavage of the bladder to stimulate reflex control is:

- A. Closed drainage
- B. Tidal drainage
- C. Postural drainage
- D. Straight drainage

Ref. 4-p.755

21. Edema can result from:

- A. Kidney disease and severe burns
- B. Lymphatic and venous blockage
- C. Overdilation of arterioles
- D. All of the above.

Ref. 6- pp.190, 191

22. Which of the following methods are not used to control blood loss in the OR?

- A. Electrocoagulation and hot packs
- B. Deoxydized cellulose and cotton pledgets
- C. Bones wax and sponges
- D. Hemostats and ligating clips

Ref. 4-p.101

23. The main indication for dialysis in renal failure is a high _____. The methods of dialysis are _____ and _____.

- A. Serum potassium, hemodialysis, peritoneal dialysis
- B. Serum sodium, hemodialysis, peritoneal dialysis
- C. Serum calcium, peritoneal dialysis, hemodialysis
- D. Serum protein, peritoneal dialysis, hemodialysis

Ref. 4-p.553

24. A patient receiving IV therapy develops shortness of breath with increased respiratory rate and blood pressure. The diagnosis is _____ and the nurse should _____.

- A. Pulmonary infarction, increase IV flow rate
- B. Circulatory depression, decrease IV Flow rate
- C. Pulmonary edema, stop the IV
- D. Circulatory overload, slow the IV.

Ref. 5-p.89

25. All of the following are function of the spleen except:

- A. Blood reservoir
- B. Hemopoiesis
- C. Red blood cell and platelet destruction
- D. Stabilize arterial flow

Ref. 1-p.355

Sutures and Wound Repair I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

- 1. Which of the following men discovered that the body absorbs sutures made from animal tissues?**

 - A. Ambroise Paré
 - B. Philip Syng Physick
 - C. Joseph Lister
 - D. William Stewart Halsted

Ref. 2-p. 119

- 2. Which of the following suture materials is not absorbed but remains as a living tissue in the body?**

 - A. Nylon
 - B. Fascia lata
 - C. Cargile membrane
 - D. Ribbon gut

Ref. 2-p. 122

- 3. The space caused by the separation of wound edges which have not been closely approximated by sutures is called:**

 - A. Dehisced space
 - B. Palmar space
 - C. Dead space
 - D. Intervillous space

Ref. 4-p. 13

- 4. An interrupted suture, which is placed through the tissue from one side of the tissue from one side of the wound to the other and then back through the tissue again, is called:**

 - A. Interrupted
 - B. Buried
 - C. Purse-string
 - D. Mattress

Ref. 2-p. 119

- 5. Suture material which, during the healing process, becomes encapsulated by fibrous tissue is called:**

 - A. Fascia lata
 - B. Absorbable suture
 - C. Ribbon gut
 - D. Nonabsorbable suture

Ref. 2-p. 122

6. In the presence of infection, the absorption rate of surgical gut is:

- A. Immediately terminated
- B. Decreased
- C. Increased
- D. Not affected

Ref. 2-p. 121

7. Which of the following sutures may be used in the presence of infection?

- A. Cotton
- B. Nylon
- C. Polypropylene
- D. Silk

Ref. 4-p. 18

8. A suture in which short lateral stitches are taken beneath

- A. Mattress
- B. Subcuticular
- C. Traction
- D. Blanket

Ref. 2-p. 118

9. The healing process in which a wound is purposely left open and allowed to heal from the bottom upward is called:

- A. Primary intention
- B. Interrupted intention
- C. Secondary intention
- D. Third intention

Ref. 3-p. 42

10. Surgical gut is made from the:

- A. Connective tissue of the small intestines of cats
- B. Dissected tendons of young calves
- C. Peritoneum of beef cattle
- D. Submucosa layer of sheep's intestines

Ref. 3-p. 72

11. Which of the following is most inert in tissue?

- A. Cotton
- B. Wire
- C. Silk
- D. Nylon

Ref. 4-p.18

12. A stay suture does not pass through:

- A. Subcutaneous tissue
- B. Rectus muscle
- C. Mesentery
- D. Fascia

Ref. 1-p. 199; ref. 4-p.39

13. The spitting open or gaping of a wound is called:

- A. Evisceration
- B. Dehiscence
- C. Herniation
- D. Eventration

Ref. 2-p. 228

14. Which of the following is used to stop bleeding and oozing on the surfaces of severed bones?

- A. Hot packs
- B. A mixture of waxes (chiefly beeswax)
- C. A powder made from beef blood
- D. A gelatin sponge

Ref. 2-p. 14

15. The protrusion of bowel through the separated edges of an abdominal wound closure is called:

- A. Dehiscence
- B. Evisceration
- C. Wound disruption
- D. Secondary suture line

Ref. 2-p. 228

16. Silk is not recommended for use in the gallbladder, kidney, or bladder because:

- A. It causes necrosis of tissue
- B. Bite and urine dissolve it
- C. It may become the nucleus for stone formation
- D. It loses its tensile strength in bite and urine

Ref. 2-p. 123

17. Most braided or twisted nonabsorbable sutures should not be used in the presence of active infection because:

- A. They cause strangulation of the tissue
- B. Infection causes decomposition of sutures
- C. They are difficult to remove
- D. The sutures become a breeding place for infection

Ref. 2- pp. 121, 123; ref. 4-p. 16

18. The Halsted Technique consists mainly of:

- A. Interrupted silk sutures
- B. Continuous sutures
- C. Widely spaced sutures
- D. Interrupted surgical gut

Ref. 4- p. 11

19. Another name for a stick tie or transfixion suture is:

- A. Interrupted suture
- B. Suture ligature
- C. Tension suture
- D. Stay suture

Ref. 2-p. 118

20. Bumpers or guards are used on tension sutures to:

- A. Allow for the easy removal of the sutures
- B. Equalize tension on the wound edges
- C. Prevent the heavy suture from cutting into the skin
- D. Designated the sutures which are removed first

Ref. 1-p. 199; ref 5-p. 11-12

21. Tissue trauma will be kept to a minimum by using:

- A. Suture threaded through an eyed needle
- B. Suture swaged to a needle
- C. Heavy gauge suture material
- D. Suture threaded on a French eye needle

Ref. 2-p.119; Ref. 4-p.33

22. The amount of weight or pull necessary to break the suture or ligature material is called:

- A. Yield power
- B. Gauge
- C. Tensile strength
- D. Temper

Ref. 3-p.72

23. Which of the following would have a weakening effect on suture?

- A. Soaking it in saline
- B. Testing its tensile strength
- C. Straightening it
- D. All of the above

Ref. 4-pp.29, 30

24. Which of the following synthetic nonabsorbable suture material is least reactive in tissue?

- A. Polypropylene
- B. Polyester fiber
- C. Nylon
- D. TEFLON impregnated polyester

Ref. 4-p. 18

25. What type of suture would be used when closing the anus for the perineal stage of an abdominal perineal resection?

- A. A tension suture
- B. A purse-string suture
- C. A traction suture
- D. A mattress suture

Ref. 2-p.118

General Surgery I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. The ampulla of Vater is dilated for:

- A. Pyloric stenosis
 - B. Ileocecal stricture
 - C. Pancreatic duct stones
 - D. Common duct stones
- Ref. 3-pp. 719, 731; Ref. 6-p. 183

2. Select the procedure(s) that require(s) isolation of instruments from rest of operative field- 1. open intestinal anastomosis, 2. common duct exploration, 3. exteriorization of colostomy, and 4.esophagomyotomy.

- A. Only 1
 - B. All but 2
 - C. 1, 2, 3
 - D. 1 and 3
- Ref. 3-pp. 724, 755, 761

3. A longitudinal ulcer in the anal canal is _____ and _____ is a tubular tract that has its skin opening beside the Anus.

- A. Fissure in ano, fistula in ano
 - B. Fistula in ano, pilonidal cyst
 - C. Ischiorectal abscess, fissure in ano
 - D. Fissure in ano, pilonidal cyst
- Ref. 3-pp. 792,793; ref. 5-p. 497, 498

4. Protrusion of viscera through the abdominal incision following surgery is:

- A. Eventration
 - B. Dehiscence
 - C. Disruption
 - D. Evisceration
- Ref. 4-p. 228

5. All of the following conditions require immediate surgery except:

- A. Complete small bowel obstruction
 - B. Cecal volvulus
 - C. Bile peritonitis
 - D. Massive rectal prolapse
- Ref. 1-p.421

6. Cessation of peristalsis is:

- A. Singultus
- B. Diverticulitis
- C. Paralytic ileus
- D. Colitis

Ref. 1-p. 386; ref 5-p. 494

7. An abdominal incision made parallel and about four cm lateral to midline is a _____ incision.

- A. Transverse
- B. Paramedian rectus
- C. Pfannenstiel
- D. Subcostal

Ref. 2-pp. 1, 2; ref. 3-p. 681

8. Which statement concerning hernias is not true?

- A. In an incarcerated hernia, the intestinal flow is obstructed
- B. Strangulated hernia causes acute intestinal obstruction
- C. Direct hernia leaves the abdomen through the inguinal ring
- D. Femoral hernia appears below Poupart's ligament

Ref. 3-pp. 690-694; ref. 5-pp. 480, 481

9. Subtotal gastric resection with gastrojejunostomy anterior to the transverse Colon is a _____.

- A. Billroth I
- B. Polya
- C. Billroth II
- D. Mikulicz

Ref. 3-p. 766; ref. 5-p. 464

10. A saccular dilation leading from the lumen of the bowel is:

- A. Polyp
- B. Ventral hernia
- C. Diverticulum
- D. Volvulus

Ref. 5-p. 486

11. The surgical procedure for carcinoma of the head of the pancreas is a _____ operation.

- A. Heller
- B. Roux-Y
- C. Hofmeister
- D. Whipple

Ref. 3-p. 737; ref 5.-p. 537

12. Vagotomy is performed with partial gastrectomy for peptic ulcer disease to:

- A. Decrease transmission of pain stimuli
- B. Increase secretion of gastrin
- C. Increase blood circulation to greater curvature
- D. Decrease secretion of hydrochloric acid

Ref. 3-pp. 342, 772, 773; ref. 5-p. 465

13. Esophageal varices occur when an increase in _____ obstruction forces _____ blood to seek a new avenue of return to the a _____.

- A. Hepatic artery, arterial, pulmonary circulation
- B. Splenic vein, venous, left ventricle
- C. Pulmonary vein, arterial, left atrium
- D. Portal vein, venous, right atrium

Ref. 5 -p. 523

14. A Roux-Y procedure for common duct repair is a:

- A. Cholecystoduodenotomy
- B. Choledochojejunostomy
- C. Cholecystojejunotomy
- D. Cholodochoduodenostomy

Ref. 1-p. 374; ref 3.-pp. 734, 735

15. Surgical bypass procedure for portal hypertension is a shunt between _____ and _____ or between _____ and _____.

- A. Hepatic artery, cystic artery, portal vein, splenic vein
- B. Portal vein, inferior vena cava, splenic vein, left renal vein
- C. Splenic artery superior mesenteric, portal vein, left renal vein
- D. Portal vein, splenic vein, left renal vein, inferior vena cava

Ref. 3-pp. 674, 677; ref 5.-p. 525

16. All of the following cause intestinal obstruction except:

- A. Intussusception
- B. Volvulus of cecum
- C. Colitis
- D. Superior mesenteric embolus

Ref. 1-pp. 385, 386, 421; ref. 5-pp. 493, 494

17. Which statement concerning the thyroid is not true?

- A. Blood supply is from the external carotid arteries
- B. Gland affects rate at which all tissues metabolize
- C. A glandular segment is essential to life
- D. Thyroid crisis can occur in patient with hyperthyroidism

Ref. 1-p.458; Ref. 3-p.701; Ref. 5-p.685

18. Which statement concerning small bowel obstruction is not true?

- A. It may lead to metabolic acidosis
- B. It causes distention of proximal intestine
- C. It may lead to metabolic alkalosis
- D. It causes distension of distal intestine

Ref. 1-p.385, Ref. 5-p.493

19. In which of the following is a loop colostomy done?

- A. Abdominoperineal resection
- B. Bowel decompression
- C. Total colectomy
- D. Hemicolectomy

Ref. 3-pp.785, 787

20. Which of the following must be sutured to close an upper paramedian incision: 1. anterior rectus sheath, 2. rectus abdominus muscle, 3. posterior rectus sheath, 4. peritoneum

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

Ref. 3-p.681

21. A benign intestinal tumor is _____ while _____ is malignant.

- A. Lipomata, angiomata
- B. Lymphosarcoma, fibromata
- C. Angiomata, Lipomata
- D. Fibromata, Lymphosarcoma

Ref. 5-p.487

22. Which statement concerning splenectomy is not true?

- A. Major veins and arteries to be ligated are in the hilum of the spleen
- B. Subcapsular hematoma or splenic rupture require emergency surgery
- C. Thrombocytosis usually occurs following surgery
- D. Surgery causes an increases in antibody production

Ref. 1-pp.435, 442; Ref. 6-pp.212-214

23. Which of the following does not require immediate surgery?

- A. Fecal impaction
- B. Sigmoid colon volvulus
- C. Paralytic ileus
- D. All of the above

Ref. 1-pp.386, 421; ref 6-p167

24. The four major sources of blood supply to the stomach are:

- A. Right and left gastroepiploic, right and left gastric
 - B. Celiac, ileocecal, superior and inferior mesenteric
 - C. Right and left gastric, celiac, ileocecal
 - D. Right and left gastroepiploic, superior and inferior mesenteric.
- Ref. 2-pp.12-27; Ref. 3-pp.748, 749; Ref. 6-p198

25. Anastomosis between the small intestine and colon is a:

- A. Gastroenterostomy
 - B. Ileocolostomy
 - C. Ileojejunostomy
 - D. Ileocecostomy.
- Ref. 3-pp.787, 788; Ref. 5-p.488

General Surgery II

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. Surgical removal of an endocrine gland effects the:

- A. Respiratory system
- B. Body Metabolism
- C. Circulatory system
- D. All of the above

Ref. 3-p.792; ref 5-p.78

2. Which structure must be identified in a parotidectomy procedure?

- A. Hypoglossal nerve
- B. Internal jugular vein
- C. Trapezius muscle
- D. Cranial nerve VII

Ref. 2-pp.221, 333; ref 4-pp.371-373

3. Which procedures may be performed for breast and/or prostatic malignancy: 1. prostatectomy, 2. mastectomy, 3. adrenalectomy, 4. hypophysectomy, 5.oophorectomy, 6. orchiectomy?

- A. Only 1 and 2
- B. 1, 2, 5
- C. 1, 2, 5, 6
- D. All of the above

Ref. 2-pp.381, 439; ref 3-pp.666, 807,834

4. The salivary glands consist of: 1. the sublingual, 2. submaxillary, 3. parotid, 4.steson's, 5 Brunner's

- A. 1 and 2
- B. 1, 2, 3
- C. only 1
- D. All of the above

Ref. 1-p.389; Ref. 2-p.209

5. Which statement(s) about the endocrine glands is/are false?

- A. They release their secretions into the blood stream
- B. They are essential for growth and development
- C. They are ductless glands
- D. None of the above

Ref. 1-pp.267-268

6. Acromegaly is the result of hyperfunction of the:

- A. Thyroid
- B. Adrenals
- C. Pineal
- D. Pituitary

Ref. 1-p.270; Ref. 3-pp.883-834

7. Which statement concerning a postoperative hypophysectomy patient is true?

- A. Replacement adrenal steroid therapy is required
- B. Diabetes insipidus may occur
- C. Cessation of menstruation and infertility occurs
- D. All of the above

Ref. 3-pp.716, 834

8. The secreting cells of the mammary glands:

- A. Are the alveoli
- B. Are sebaceous
- C. Drain into the axilla
- D. Drain into the blood stream

Ref. 1-p.491; Ref. 3-p.711; ref4-p.390

9. Whipple operation for carcinoma of the pancreas includes removal of the _____ of the pancreas, entire _____, portion of the _____ and the distal segment of the _____.

- A. Tail, duodenum, stomach, ileum
- B. Head, stomach, duodenum, cystic duct.
- C. Tail, stomach, duodenum, hepatic duct
- D. Head, duodenum, stomach, common bile duct.

Ref: 2- p.737; ref p.815; ref 5-p. 110

10. Low levels of adrenocortical hormone in the blood or urine is indicative of _____ diseases.

- A. Grave's
- B. Cushing's
- C. Myxedema
- D. Addison's

Ref. 3-p.805

11. Radical mastectomy for cancer involves removal of portion of the _____ muscle(s)

- A. Pectoralis major and minor
- B. Serratus anterior
- C. Rectus
- D. Intercostal

Ref. 2-p.715; ref 4-p.398; ref 5-p.78

12. Bleeding from a tonsillar bed is controlled with _____ rather than _____ which might damage the _____ artery.

- A. Suture ligation, pressure, common carotid
 - B. Slip knot ligation, electrocoagulation, external maxillary
 - C. Pressure, suture ligatures, external carotid
 - D. Electrocoagulation, slip knot ligatures, superior thyroid
- Ref. 2-p.214; Ref. 4-pp.363-364

13. Which is the master gland of the endocrine system?

- A. Pineal
 - B. Pituitary
 - C. Adrenal
 - D. Thymus
- Ref. 1-p.268; Ref. 3-p.831

14. The pancreas secretes the hormones _____ and _____ which involved in _____ metabolism.

- A. Glucagon, insulin, carbohydrate
 - B. Insulin, cortisol, fat
 - C. Insulin, prolactin, carbohydrate
 - D. ACTH, insulin, fat
- Ref. 1-pp.402-403,442; Ref. 3-pp719-722

15. Adrenocorticotropin (ACTH), follicle-stimulating hormone (FSH), and luteinizing hormone (LH) are secreted by; 1. adrenals, 2.ovaries, 3. testes, 4. pituitary

- A. 1, 2, 3 respectively
 - B. 2 and 3
 - C. Only 4
 - D. All of the above
- Ref. 1-p.272; ref 3-p.792

16. The hormone estrogen is secreted by the: 1. adrenal cortex,2.ovaries, 3. pituitary, 4. adrenal medulla

- A. 1 and 2
 - B. Only 2
 - C. 1, 2, 4
 - D. All of the above
- Ref. 1-p.283; ref3-p.805

17. Which gland is vital to the body's immunity mechanism?

- A. Pituitary
 - B. Adrenals
 - C. Thymus
 - D. Pineal
- Ref. 1-p.376; Ref. 3-p.233

18. A test of thyroid function is a _____ which measures the _____.

- A. BMR, iodine consumption after a fast
- B. Iodine uptake, sugar metabolism
- C. BMR, oxygen consumption at rest
- D. Iodine uptake, protein metabolism

Ref. 3-p.794

19. Which statement(s) about surgery of the breast is/are false?

- A. Simple mastectomy does not include lymph node dissection
- B. Augmentation mammoplasty is done for gynecomastia
- C. Biopsy instruments are not used for radical procedure
- D. All of the above

Ref. 3-p.717; Ref. 5-p.78

20. Excessive accumulation of uric acid in the blood with disposition of acid crystal in tissue causes:

- A. Ketoacidosis
- B. Gout
- C. Diabetes insipidus
- D. Uremia

Ref. 3-p.834

**21. Care must be taken not to damage which structures during a thyroidectomy:
1.parathyroids, 2. trachea, 3. esophagus, 4. recurrent laryngeal nerve?**

- A. 1, 2, 4
- B. Only 2
- C. 1, 2, 3
- D. All of the above

Ref. 4-pp.386-387

22. The _____ hormone secreted by the _____ gland(s) regulates the metabolism of calcium and phosphorus

- A. Parathyroid, parathyroid
- B. Somatotropin, anterior pituitary
- C. Thyroxine, thyroid
- D. Aldosterone, adrenal

Ref. 1-p.279

23. Which statement(s) about the thyroid is/are true?

- A. Tracheal compression can occur from postoperative edema
- B. The gland is essential to life
- C. Nontoxic nodular goiter produces excess thyroid hormone
- D. All of the above

Ref. 2-p.701; ref 5-p.78

24. The three main vessels which are ligated in thyroidectomy are:

- A. Maxillary, lingual, thyroid veins
- B. Superior, middle, inferior thyroid veins
- C. Carotid, alveolar, thyroid veins
- D. Mandibular, jugular, thyroid veins

Ref. 2- p.704-705; Ref. 4-p.386

25. Complete removal of the _____ gland(s) results in severe tetany.

- A. Parathyroid
- B. Adrenal
- C. Pituitary
- D. Thymus

Ref. 2-p.707; Ref. 3-p.802

General Surgery III

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. A choledochotomy is a/an:

- A. Incision into the gall bladder for stones
- B. Cystic duct exploration
- C. Incision into common bile duct
- D. Anastomosis between common duct and duodenum

Ref. 3 – p. 731; ref. 4 – p. 616

2. The characteristic symptom of perforated peptic ulcer is:

- A. Pain in lower abdomen
- B. Pallor
- C. Shock
- D. Hemorrhage

Ref. 1 – p. 338; ref. 4 – pp. 545 – 546

3. Separation of the congenital hypertrophied sphincter which prevents emptying of the stomach in an infant is a:

- A. Gastrostomy
- B. Pyloromyotomy
- C. Gastrojejunostomy
- D. Cardiomyotomy

Ref. 3 – pp. 761 – 762; ref. 4 – p. 301

4. In surgical correction of a hiatal hernia, the:

- A. Cardiac sphincter is dilated
- B. Fundus is decompressed
- C. Diaphragm crura is tightened
- D. All of the above

Ref. 3 p. 698; ref. 4 – pp. 527 – 528; ref. 6 – p. 419

5. Hemorrhage occurring during operation on the biliary tree usually results from injury to the:

- A. Left hepatic artery
- B. Portal vein
- C. Cystic artery
- D. Cystic vein

Ref. 1 – p. 373; ref. 3 – p. 727

6. Which diagnosis does not require operation?

- A. Intussusception
- B. Strangulated hernia
- C. Meckel's diverticulum
- D. Paralytic ileus

Ref. 1 – p. 386; ref. 4 – p. 580

7. Longitudinal ulcer in the anal canal is a/an:

- A. Hemorrhoid
- B. Fissure in ano
- C. Pilonidal cyst
- D. Ischiorectal abscess

Ref. 4 – p. 585

8. Which statement concerning the spleen is false?

- A. It has fibrous attachments to diaphragm, kidney and stomach
- B. The hilum contains the major veins and arteries
- C. The splenic artery is a branch of the celiac axis
- D. The splenic vein drains into the inferior vena cava

Ref. 2 – p. 349; ref. 3 – pp. 722, 745; ref. 6 – p. 221

9. Which is/are postoperative complication (s) of total gastrectomy: 1. dumping syndrome, 2. anemia, 3. vitamin B12 deficiency, 4. diarrhea?

- A. 1 and 4
- B. 1, 2, 4
- C. Only 1
- D. All of the above

Ref. 1 – pp. 343 – 344; ref. 4 – pp. 548 – 549

10. The _____ is attached to the _____.

- A. Omentum, stomach
- B. Mesentery, diaphragm
- C. Omentum, diaphragm
- D. Mesentery, stomach

Ref. 2 – p. 385; ref. 3 – p. 748

11. A partial gastrectomy followed by a gastroduodenal anastomosis is a:

- A. Billroth I
- B. Polya
- C. Billroth II
- D. Hofmeister

Ref. 3 pp. 765 – 767; ref. 7 – p. 27

12. Which anastomoses are completed in a Whipple operation: 1. pancretojejunosomy, 2. duodenojejunosomy, 3. choledochojejunosomy, 4. gastrojejunosomy?

- A. 1, 2, 3
- B. 2, 3, 4
- C. 1, 3, 4
- D. All of the above

Ref. 3 - pp. 737 - 740; ref. 4 - p. 816

13. In an upper quadrant oblique incision (subcostal), which muscle is retracted of transversely divided?

- A. Transversalis
- B. External abdominal oblique
- C. Internal abdominal oblique
- D. Rectus

Ref. 3-p.683; ref. 7-p.17

14. Care must be taken during ligation of the vena cava for pulmonary embolism to prevent injury to: 1. lumbar veins, 2. right ureter, 3. iliac artery, 4. aorta

- A. 1 and 4
- B. 1 and 2
- C. Only 4
- D. All of the above

Ref. 6-p.305

15. Removal of fibrosed palmar aponeurosis is done for:

- A. Flexor tendon graft
- B. Dupuytren's contracture
- C. Syndactylism
- D. Pericardectomy

Ref. 3-p.305;ref. 4-p.1012

16. Removal of fibrinous deposit or restrictive membrane on the pleural lining that interferes with pulmonary ventilation is a:

- A. Cardiac poudrage
- B. Decortication
- C. Thymectomy
- D. Pericardectomy

Ref. 3-pp.592-593

17. Postoperative gastrointestinal bleeding can cause _____ shock while _____ shock is the result of failure of arterial resistance.

- A. Hypervolemic, cardiogenic
- B. Hypervolemic, anaphylactic
- C. Hypovolemic, neurogenic
- D. Septic, neurogenic

Ref. 4-pp.195-196; ref. 5-pp.146-147

18. Carcinoma of the lung may be confirmed by: 1. scalene node biopsy, 2. mediastinoscopy, 3. bronchoscopy, 4. esophagoscopy.

- A. 2 and 3
- B. Only 3
- C. 1, 2, 3
- D. All of the above

Ref. 1-pp. 302-303

19. Place these digestive system structures in correct sequence: 1. pyloric sphincter, 2. fundus, 3. diaphragm, 4. jejunum, 5. ileum, 6. esophagus, 7. cardiac sphincter, 8. duodenum, 9. ampulla of Vater.

- A. 7, 3, 6, 2, 1, 4, 8, 9, 5
- B. 6, 3, 7, 2, 1, 8, 9, 4, 5
- C. 3, 6, 1, 2, 7, 9, 8, 5, 4
- D. 6, 3, 7, 1, 2, 9, 8, 5, 4

Ref. 2 - pp. 391 - 401; Ref. 3 - pp. 697, 719, 721, 747

20. Which is/are not hemostatic agent(s): 1. oxytocin, 2. bone wax, 3. oxidized cellulose, 4. styptics, 5. thrombin?

- A. 1 and 5
- B. 1,4,5
- C. 2, 3, 4
- D. Only 1

Ref. 5-pp.136-137

21. Acute cholecystitis usually is associated with: 1. gallstones, 2. cystic duct obstruction, 3. bacterial infection, 4. empyema.

- A. 1. and 2
- B. Only 2
- C. 1, 2, 3
- D. All of the above

Ref. 1-p. 368; ref. 4-p.614

22. Which is/are serious postoperative problem(s) following parathyroidectomy?

- A. Tetany
- B. Gout
- C. Renal Stones
- D. All of the above

Ref. 1-pp.501-503

23. A weakness of the fascial margin of the internal ring is a _____ hernia; a weakness of the fascial floor of the inguinal canal is _____ hernia.

- A. Direct, indirect
- B. Femoral, sliding
- C. Indirect, direct
- D. Sliding, femoral

Ref. 3 - pp. 692 - 693; ref. 6 - p. 165

24. Portacaval shunt is indicated for: 1. esophageal varices, 2. portal hypertension, 3. back pressure on portal vein, 4. Laennec's cirrhosis.

- A. 1 and 4
- B. 1, 2, 3
- C. 1, 3, 4
- D. All of the above

Ref. 3-pp.674-675; ref. 6-p.314

25. Vagotomy for peptic ulcer often is accompanied by pyloroplasty because:

- A. Vagotomy may cause gastric atony
- B. Gastric secretions increase
- C. Gastric contractions increase
- D. Vagotomy stimulates gastric acid

Ref. 3-pp.772-773; ref. 4-p.546

General Surgery IV

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. **In two-layer bowel anastomosis, the inner _____ layer is closed with _____ sutures and the outer _____ layer with _____ sutures.**
 - A. Serosal, nonabsorbable, mucosal, absorbable
 - B. Mucosal, absorbable, serosal, nonabsorbable
 - C. Serosal, absorbable, mucosal, nonabsorbable
 - D. Mucosal, nonabsorbable, serosal, absorbable

Ref. 3-p.181; Ref. 5-p.246

2. **Combined with an antrectomy or gastroenterostomy, _____ is the most common operative procedure for peptic ulcer.**
 - A. Pyloroplasty
 - B. Gastric bypass
 - C. Gastronomy
 - D. Vagotomy

Ref. 1-p.326; ref. 3-p.149; ref. 5-p.240

3. **The pancreas functions as an _____ gland secreting insulin and _____ directly into the _____.**
 - A. Endocrine, glucagon, blood serum
 - B. Exocrine, glycogenase, duodenum
 - C. Endocrine, pancreatic juices, blood stream
 - D. Exocrine, glucagon, duodenum

Ref. 1-p.324; Ref. 4-pp.1472-1473

4. **As a consequence of ligating the inferior mesenteric (Mesozoic) artery and vein, it is necessary to remove the entire _____ colon and anastomose the _____ colon to the _____ colon.**
 - A. Left, distal transverse, sigmoid
 - B. Transverse, ascending, descending
 - C. Right, descending, transverse
 - D. Left, ascending, cecum

Ref. 3-pp.188-189; ref. 5-p.225

5. **The operative procedure for carcinoma of the head of the pancreas or ampulla of Vater is a _____ procedure.**
 - A. Roux en Y
 - B. Billroth II
 - C. Whipple
 - D. Billroth I

Ref. 1-p. 324; ref. 3-p.275

6. **Which structures are amenable to stapling: 1. bronchus, 2. galea, 3. bowel, 4. split thickness graft, 5. ankle bones?**
- A. 1, 3, 4
 - B. Only 3
 - C. 2 and 5
 - D. All of the above
- Ref. 1-pp. 374,383,434,447
7. **Small bowel obstruction leads to electrolyte imbalance: first to _____ from loss of _____; then to _____ due to loss of _____.**
- A. Acidosis, water of sodium, alkalosis, hydrochloric acid
 - B. Alkalosis, potassium, acidosis, glucose
 - C. Alkalosis, hydrochloric acid, acidosis, water and sodium
 - D. Acidosis, glucose, alkalosis, potassium
- Ref. 2-p.788
8. **In gastric bypass for morbid obesity, stapling the _____ portion of the stomach provides a small _____ outlet.**
- A. Proximal, gastrojejunostomy
 - B. Distal, cardiac
 - C. Proximal, esophageal
 - D. Distal, pyloric
- Ref. 4-pp.1430-1431; ref. 5-pp. 239-240
9. **Which of the following factors can cause intestinal obstruction: 1. volvulus, 2. hernia, 3. mesenteric infarction, 4. paralytic ileus, 5. intussusception?**
- A. 1, 4, 5
 - B. All but 3
 - C. 1, 2, 3
 - D. All of the above
- Ref. 2pp.788-789; ref. 4-pp. 1452-1453
10. **The causes of peritonitis include which of the following: 1. ruptured spleen, 2. puerperal infection, 3. gangrenous obstruction of the bowel, 4. acute pancreatitis, 5. ulcerative colitis?**
- A. 1 and 5
 - B. 1,3,4
 - C. 2 and 4
 - D. All of the above
- Ref. 4-p. 1449
11. **The dumping syndrome occurs after gastric resection because of the:**
- A. Small opening from gastric stump into duodenum
 - B. Rapid entry of food into the jejunum
 - C. Low electrolyte concentration in jejunum
 - D. Prolonged digestive process in duodenum
- Ref. 1-p. 325; ref 2-p. 752; ref. 4-p. 1438

12. After completion of the anastomosis in colon resection procedures, the mesentery is carefully reapproximated to:

- A. Provide protective covering
- B. Prevent internal hernias with bowel entrapment
- C. Reestablish adequate blood supply
- D. Encourage return of peristalsis

Ref. 3-p. 187

13. Which statement concerning parenteral hyperalimentation therapy following gastrointestinal surgery is false?

- A. Catheter is inserted in a large-diameter vein with high blood flow
- B. Too rapid flow of solution causes hyperglycemia
- C. Constant monitoring is necessary
- D. Basic solution consists of hypotonic glucose and amino acids

Ref. 1-pp. 59-61; ref. 2-pp. 728-731

14. The purpose of vagotomy is treating patients with peptic ulcers is to:

- A. Produce gastric atony
- B. Decrease midline periodic pain
- C. Decrease gastric acid hypersecretion
- D. Increase gastrin formation to neutralize hydrochloric

Ref. 1-p. 326; ref. 2-p. 747; ref. 4-pp. 1437-1438

15. _____ is/are a life-threatening obstruction in which the intestinal lumen is obstructed both proximally and distally, leading to bowel necrosis, perforation and peritonitis.

- A. Volvulus
- B. Paralytic ileus
- C. Intussusception
- D. Adhesions

Ref. 2 -p.789

16. Many postoperative patients are in a state of _____ due to _____ depletion, a condition that retards wound healing.

- A. Hypokalemia, sodium
- B. Negative nitrogen balance, protein
- C. Metabolic acidosis, calcium
- D. Hypernitremia, potassium

Ref. 2-pp. 151, 728-729; ref. 4-p. 210-211

17. The _____ is the most common site for cancer of the large intestine.

- A. Ascending colon
- B. Transverse colon
- C. Cecum
- D. Rectosigmoid

Ref. 4-p. 1454

18. To provide necessary calories in the nutritionally deficient postoperative patient, parenteral hyperalimentation is preferred over routine IV therapy because:

- A. Hypotonic glucose solution is too concentrated for IV therapy
- B. IV fluid volume could surpass body's fluid tolerance
- C. IV therapy requires 24 hour surveillance
- D. Hyperalimentation dilutes solution concentrate

Ref. 1-pp. 59-61; ref. 2-pp. 728-730

19. The preoperative bowel prep for intestinal surgery may include administration of neomycin which:

- A. Sterilizes the gastrointestinal tract
- B. Reduces aerobic and anaerobic resident bacteria in bowel
- C. Prevents postoperative wound infection
- D. Is readily absorbed into the blood stream

Ref. 2-pp. 786-787; ref. 3-p. 180

20. When a loop of jejunum is anastomosed end-to-side with the esophagus in a total gastrectomy, a _____ is necessary to _____.

- A. Jejunojejunostomy, prevent regurgitation esophagitis
- B. Esophagoduodenostomy, prevent dumping syndrome
- C. Vagotomy, reduce gastrin secretion
- D. Pyloroplasty, prevent protein maldigestion

Ref. 3-p. 156-157; ref. 5-pp. 238-239

21. For a perforated diverticulum of the colon, the affected bowel segment is resected followed by a/an:

- A. End-to-end anastomosis
- B. One-stage operation
- C. Two-stage operation
- D. D. Permanent colostomy

Ref. 2-p. 776; ref. 3-p. 194

22. Which urinary diversion procedures are used when the bladder no longer serves as the urine reservoir: 1. ureterosigmoidostomy, 2. ureterocutaneous transplant, 3. ureteroureterostomy, 4. ileal conduit, 5. ureteroneocystostomy?

- A. 2, 4, 5
- B. 1, 2, 4
- C. 1, 3, 5
- D. 2, 3, 5

Ref. 1-p.326; ref. 5-pp. 234-236

23. Which partial gastrectomy procedure includes a gastroduodenal anastomosis: 1. Billroth I, 2. Polya, 3. Hofmeister, 4. Billroth II?

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

Ref. 1-p. 326; ref. 5-pp. 234-236

24. To provide complete rest to the colon or following resection of the large bowel, a/an _____ is performed.

- A. Cecostomy
- B. Ileal conduit
- C. Colostomy
- D. Illeostomy

Ref. 1-p.327; ref. 5-p. 243

25. Reconstruction of the gastrointestinal tract in a Whipple procedure is accomplished by the following anastomosis:

- A. Cholecystoduodenostomy, esophagogastrostomy, pyloroplasty
- B. Pancreatojejunostomy, choledochojejunostomy, gastrojejunostomy, choledochojejunostomy
- C. Cholecystojejunostomy, gastroenterostomy, jejunojejunostomy
- D. Gastrojejunostomy, esophagojejunostomy, choledocostomy

Ref. 3-pp. 276-277; ref. 5-pp. 215-216

Gynecology I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. All of the following statements concerning the menopause are true except:

- A. The climacteric period is normal and self- limiting
- B. There is an associated loss of libido
- C. Mental depression is not unusual at this time
- D. The reproductive and mammary glands atrophy

Ref. 3-p. 592

2. All of the following are functions of estrogen in ovulation and pregnancy except:

- A. Development of uterine smooth muscle cells
- B. Enlargement of the vagina
- C. Development of the breasts
- D. Inhibition of uterine contractions

Ref. 4-p. 12

3. The needleholder used by the surgeon to close the vaginal vault following an abdominal hysterectomy must be:

- A. A Heaney needleholder
- B. On the vaginal rather than on the abdominal setup
- C. Considered contaminated and discarded
- D. Standard length

Ref. 2-p. 209

4. An indwelling catheter is inserted in the bladder of a patient receiving radium treatment for cervical carcinoma in order to:

- A. Identify the bladder on the X-Ray
- B. Prevent distention and maintain bladder out of path of radiation
- C. Check the PH of urine during radiation therapy
- D. All of the above

Ref. 2-p. 141

5. The fallopian tubes receive their blood supply from the branches of the:

- A. Internal iliac and ovarian veins
- B. Intercostal and iliac arteries
- C. Uterine and ovarian arteries
- D. Ovarian and iliac arteries

Ref. 1- p.745

6. According to the International Classification, a patient with a diagnosis of a Stage 4 Cancer of the cervix has:

- A. A lesion confined to the cervix
- B. a lesion involving the lower third of the vagina
- C. a lesion extending to the bladder and rectum
- D. Carcinoma in situ

Ref. 3-p. 607

7. Which of the following are used by GYN surgeons to identify renal structures in pelvic laparotomies for large tumor masses?

- A. Silver clips
- B. Urethral catheters
- C. Radiopaque dye
- D. Ureteral catheters

Ref. 6-p. 83

8. The placement of a purse-string suture in the submucosal layer of the cervical os to prevent spontaneous abortion in the second trimester is a:

- A. Trachelorrhaphy
- B. Colpotomy
- C. Shirodkar procedure
- D. Manchester repair

Ref. 3-p. 596

9. The procedure for determining the patency of the fallopian tubes by introducing carbon dioxide through a sterile cannula into the uterus, the tubes, and then into the peritoneal cavity is a:

- A. Hysterosalpingogram
- B. Rubin test
- C. Culdoscopy
- D. Huhner test

Ref. 3-p. 593

10. An ectopic pregnancy may occur in:

- A. The cervix
- B. A uterine ligament
- C. The abdominal cavity
- D. All of the above

Ref. 2-p. 209

11. Which of the following is not a uterine ligament?

- A. Round
- B. Broad
- C. Triangular
- D. Uterosacral

Ref. 5-p. 8

12. Uterine bleeding between regular menstrual periods or alter the menopause is:

- A. Menorrhagia
- B. Amenorrhea
- C. Metrorrhagia
- D. Polymenorrhea

Ref. 3-p. 592

13. In which of the following conditions is a vaginal hysterectomy contraindicated?

- A. Endometriosis
- B. Pelvic inflammatory disease
- C. Large uterine myoma
- D. All of the above

Ref. 3-p. 98

14. A protrusion of the cul-de-sac and loops of bowel within the peritoneal sac into the vaginal outlet is a:

- A. Rectocele
- B. Enterocele
- C. Urethrocele
- D. Cystocele

Ref. 1-p. 760

15. Oral contraceptives prevent the release of the _____ hormone from the anterior pituitary so _____ does not take place.

- A. Estrogen, fertilization
- B. Follicle-stimulating; ovulation
- C. Progesterone; fertilization
- D. Corticotropin; ovulation

Ref. 3-p. 595

16. All of the following statements concerning gonorrhea are true except:

- A. Mode of transmission is sexual intercourse
- B. Incubation period is from three to eight days
- C. a chancre appears at the site where the organism enters body
- D. Disease may be relatively asymptomatic in females

Ref. 3-p. 914

17. Which of the following statements concerning the ovaries is not true?

- A. They are homologous with the testes of the male
- B. They produce ova after puberty
- C. They function as endocrine glands, producing hormones
- D. Each ovary consists of three layers: the cortex, the medulla, and the myometrium

Ref. 1-p. 749

18. The causative organism of syphilis is:

- A. Trichomonas vaginalis
- B. Treponema pallidum
- C. Trichinella spiralis
- D. Neisseria gonorrhoeae

Ref. 4-p. 98

19. The progesterone hormone is secreted by the:

- A. Ovarian follicle
- B. Pituitary
- C. Adrenals
- D. Corpus luteum

Ref. 1-p. 749

20. A Papanicolaou smear of Class 4 indicates:

- A. Atypical cytology with no evidence of malignancy
- B. Absence of atypical cells
- C. Cytology positive for malignancy
- D. Cytology strongly suggestive of malignancy

Ref. 3-p. 588

21. Which of the following operations produces a surgical menopause in the patient?

- A. Subtotal hysterectomy
- B. Oophorectomy
- C. Panhysterectomy
- D. All of the above

Ref. Ref. 3-p.605

22. In which of the following patients with uterine myomas is a myomectomy the procedure of choice?

- A. Postmenopausal patient with metrorrhagia
- B. Nullipara patient with a fertility problem
- C. Multipara patient with large fibroids
- D. All of the above

Ref. 1-p. 792

23. The tubular glands situated in the wall of the female urethra just inside the meatus are:

- A. Skene's duct's
- B. Bulbourethral glands
- C. Bartholin's glands
- D. Seminal ducts

Ref. 4-p. 133

24. The operation for uterine prolapse consisting of a colporrhaphy, perineorrhaphy, and amputation of the cervix is a:

- A. Wertheim operation
- B. Manchester repair
- C. Le Fort operation
- D. Shirodkar procedure

Ref. 4-p. 133

25. All of the following statements concerning cancer of the cervix are true except:

- A. Primary candidates are multiparas who married young
- B. It is the most common cancer of the reproductive system
- C. Primary candidates are unmarried females over age 45
- D. Chief symptoms are leucorrhea and irregular vaginal bleeding

Ref. 3-p. 606

Gynecology II

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. According to the National Classification, a patient with a diagnosis of stage 3 cancer of the cervix has a lesion:

- A. Extending the bladder
- B. Confined to the cervix
- C. Involving the lower third of vagina and pelvic walls
- D. Limited to the epithelial layer

Ref. 3-p. 695; ref. 6-p. 992

2. Which of the most common inhabitant of the vaginal tract?

- A. Candida albicans
- B. Trichomonas vaginalis
- C. Hemophilus vaginalis
- D. Neisseria gonorrhoea

Ref. 3-p. 687; ref. 6-p. 147

3. A growth that occurs in the gravid uterus and develops from the chronic villi is a:

- A. Fetus
- B. Placenta
- C. Hydatiform mole
- D. Fibroid

Ref. 6-p.728

4. The blood vessels which the female pelvis are the _____ and the _____ arteries.

- A. Internal iliacs, median sacral
- B. inferior mesenterics, uterine
- C. External iliacs, uterine
- D. Superior mesenterics, median sacral

Ref. 2-p. 811

5. List the phases of the menstrual cycle in correct order: 1. menses, 2. luteal, 3. ovulation, 4. proliferative.

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

Ref. 2-pp. 494-495

6. Which is a postconceptional procedure?

- A. Manchester repair
- B. LeFort operation
- C. Wertheim procedure
- D. Shirodkar operation

Ref. 2-p. 833

7. The hormone _____, secreted by the _____, is essential for the implantation of the fertilized ovum.

- A. Estrogen, corpus luteum
- B. Progesterone, graafian follicle
- C. Estrogen, graafian follicle
- D. Progesterone, corpus luteum

Ref. 1-p. 284; ref. 2-p. 810

8. Colpocleisis, closure of the vagina for uterine prolapse, may be scheduled as a:

- A. Wertheim operation
- B. Manchester repair
- C. Shirodkar procedure
- D. LeFort operation

Ref. 2-p. 884; ref. 6-p.902

9. A perineorrhaphy or posterior colporrhaphy is the treatment of choice for:

- A. Cystocele
- B. Uterine prolapse
- C. Rectocele
- D. All of the above

Ref. 3-p. 682; ref. -pp. 718-719

10. An ectopic pregnancy may occur in the: 1. ovary, 2. infundibulum, 3. tubal ampulla, 4. cervical uterus.

- A. 1, 2, 3
- B. 2 and 3
- C. Only 3
- D. All of the above

Ref. 3-p. 682; ref. -pp. 718-719

11. A 38-year-old mother of four is admitted for stress incontinence. She is scheduled for a:

- A. Wertheim operation
- B. Colporrhaphy
- C. Trachelorrhaphy
- D. Marshall-Marchetti procedures

Ref. 2-pp. 446; Ref. 6-p. 911

12. Which statement concerning uterine fibroids is false?

- A. The condition does not require hysterectomy
- B. It is the most common benign tumor in women
- C. Oral contraceptives may cause rapid enlargement
- D. Spontaneous abortions can increase with this condition

Ref. 3-pp. 700-701; ref. 6-pp. 1031-1033

13. The greater vestibular glands or _____ glands in the female are homologous to the _____ gland(s) in the male.

- A. Skene's, prostate
- B. Bartholin, bulbourethral
- C. Skene's, bulbourethral
- D. Bartholin, prostate

Ref. 1-pp.490-491; ref. 2-p. 811

14. The removal of torn surfaces of the anterior and posterior cervical lips with reconstruction of the cervical canal is a:

- A. Cervical myomectomy
- B. Shirodkar procedure
- C. Conization
- D. Trachelorrhaphy

Ref. 2-p. 829

15. Which structure(s) pass(es) close to the uterine ligaments and must be carefully identified during their division?

- A. Phrenic nerve
- B. Superior mesenteric arteries
- C. Ureters
- D. All of the above

Ref. 5-p. 328

16. Which are causative factors in infertility: 1. uterine displacement, 2. endometriosis, 3. fallopian tube obstruction, 4. adhesions?

- A. 1, 2, 3
- B. 1 and 3
- C. 2, 3, 4
- D. All of the above

Ref. 3-pp. 683-684; Ref. 6-pp.624-630

17. Which statement concerning endometriosis is false?

- A. It is a benign lesion
- B. It is the presence of uterine lining cells in the pelvic cavity
- C. It can be a cause of infertility
- D. It occurs mainly in postmenopausal females

Ref. Ref,3 pp. 700-701; ref, 6-p. 883

18. An abnormal opening between the bladder and the vagina is a/an:

- A. Enterocele
- B. Ureterovaginal fistula
- C. Cystourethrocele
- D. Vesicovaginal fistula

Ref. 2-p. 825; ref. 3-p. 686

19. The body of the uterus is composed of: 1. endometrium, 2. myometrium, 3. parietal peritoneum, 4. musculature.

- A. Only 1 and 2
- B. 1, 2, 4
- C. 1, 2, 3
- D. All of the above

Ref. 1-p. 485; ref. 2- p. 809

20. The ligaments which are clamped, divided and ligated during an abdominal hysterectomy are:1. broad, 2. uterosacral, 3.mesovarian, 4. round.

- A. 1, 2, 4
- B. 1, 3, 4
- C. 1, 2, 3
- D. All of the above

Ref. 2-pp. 847-849; ref. 5-p. 328

21. If radon seeds are accidentally expelled from a patient's vagina, shielding may be accomplished with _____ since the seeds emit _____ rays.

- A. A layer of paper, alpha
- B. A lead apron, gamma
- C. Distance from the seeds, x-ray
- D. Metal screen, beta

Ref. 4-pp. 83-85

22. Trace the route of the ovum from ovary, through the fallopian tube to the uterus:1. fimbria, 2. graafian follicle, 3. ampulla, 4. ova, 5. infundibulum, 6. endometrium, 7. isthmus.

- A. 1, 5, 2, 4, 3, 6, 7
- B. 2, 4, 1, 5, 3, 7, 6
- C. 1, 4, 2, 3, 5, 6, 7
- D. 4, 2, 5, 1, 7, 3, 6

Ref. 1-pp.493; ref. 2-pp. 808-810

23. Pelvic inflammatory disease can be caused by: 1. gonorrhea, 2. tubercle bacilli, 3. gram-negative bacteria, 4. streptococci.

- A. 1, 3, 4
- B. 1, 2, 4
- C. 1 and 4
- D. All of the above

Ref. 3-p. 701; ref. 6-pp. 147-148

24. Which statement concerning laparoscopy is false?

- A. The procedure includes a pneumoperitoneum
- B. The scope is inserted through a small Pfannensteil incision
- C. The patient is placed in Trendelenburg position
- D. It may be a diagnostic and therapeutic procedure

Ref. 2-pp. 845-846; ref. 6-pp. 211-212

25. The leading cause of cancer death in women is cancer of the:

- A. Cervix
- B. Uterus
- C. Lung
- D. Breast

Ref. 6-p. 174

Urology I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. **A congenital anomaly in which the urethra opens on the under side of the penis or on the perineum is:**
 - A. Epispadias
 - B. Omphalocele
 - C. Hypospadias
 - D. Chordee

Ref. 1-p. 724

2. **When a patient is postured in the lateral position for a kidney operation the lower leg is _____ and the upper leg _____.**
 - A. Straight; is flexed
 - B. Internally rotated; is flexed
 - C. Flexed; remains straight
 - D. Externally rotated; remains straight

Ref. 6-p. 38

3. **In an orchiopexy, the attachment of the testis to the fascia of the thigh in an effort to reduce tension on the vessels and suture line is known as a:**
 - A. Chordee repair
 - B. Torek procedure
 - C. Bilroth I
 - D. Wertheim operation

Ref. 1-p. 721

4. **Following a transurethral resection of the prostate, the surgeon may leave a three-way Foley catheter. The third lumen provides a means for:**
 - A. Drainage
 - B. Continuous irrigation of the bladder postoperatively
 - C. Injection of radiopaque dye
 - D. Injection of cauterizing solution

Ref. 3-p. 175

5. **A urethrovesical suspension operation for urinary stress incontinence in the female is called a:**
 - A. Shirodkar procedure
 - B. Wertheim operation
 - C. Ileal conduit
 - D. Marshall-Marchetti

Ref. 5-p. 1457

6. In kidney transplant surgery, the donor kidney is usually placed in the:

- A. Abdomen
- B. Retroperitoneal space
- C. Pelvic cavity
- D. Iliac fossa

Ref. 1-p. 693

7. Which of the following type of urological catheters cannot be steam sterilized?

- A. Woven catheter
- B. Rubber catheter
- C. Nylon ureteral catheter
- D. Bougie

Ref. 3-p. 176

8. The kidneys receive their blood supply through the _____ arteries, which originate from the _____.

- A. Iliac; vena cava
- B. Renal; aorta
- C. Renal; vena cava
- D. Portal; aorta

Ref. 1-p.685

9. When X-rays are taken during surgery a lead apron should be worn by operating room personnel if they must remain:

- A. Within ten feet of the patient
- B. In the room
- C. Within three feet of the patient
- D. Within ten feet of the machine.

Ref. 6-p.70

10. A patient with urinary retention cannot void because of:

- A. Urinary cast
- B. An inability of the kidneys to secrete urine
- C. A mucus plug in the catheter
- D. A failure of the bladder to release urine

Ref. 4-p.5

11. Involuntary emptying of the bladder is:

- A. Oliguria
- B. Enuresis
- C. Pyuria
- D. Dysuria

Ref. 4-p.3

12. All of the following statements about the testes are true except:

- A. In fetal life they are located in the abdomen
- B. They are normally well down into the scrotum at birth
- C. Untreated, bilateral undescended testes causes sterility
- D. They descend normally at puberty

Ref. 4-p.138

13. An embryonal, adenomyosarcoma of the kidney that occurs predominantly in children is called:

- A. Meckel's diverticulum
- B. Omphalocele
- C. Ewing's tumor
- D. Wilm's tumor

Ref. 5 – p. 1423

14. Which of the following are used for calibration of the urethra?

- A. Robinson catheters
- B. Metal sounds
- C. Coude catheters
- D. Olive-tipped bougies

Ref. 1-p.677

15. A radiopaque dye is injected intravenously. Within a set period of time it is excreted by the kidneys and is visible on X-rays. This is called:

- A. A cystourethrogram
- B. A retrograde pyelogram
- C. A renal arteriogram
- D. An intravenous pyelogram

Ref. 3-pp.171-173

16. Stones in the urinary tract are the most common complication associated with which of the following diseases?

- A. Addison's disease
- B. Cushing's syndrome
- C. Hyperparathyroidism
- D. Megacolon

Ref. 2-p.132

17. The popular method of supravescical urinary diversion for malignant pelvic tumors, neurogenic bladder dysfunction, and chronic urinary obstruction is a cutaneous ureteroileostomy. Another name for this anastomosis is:

- A. Ureteroplasty
- B. Y-V plasty
- C. Cystolithotomy
- D. Ileal conduit

Ref. 5-p.1439

18. All of the following are found in normal urine except:

- A. Ammonia
- B. Creatinine
- C. Protein
- D. Magnesium

Ref. 2-p.450

19. Alcohol should not be used on cystoscopes as it:

- A. Does not kill bacteria
- B. Is noncorrosive
- C. Has a low toxicity
- D. Dissolves the cement around the lenses

Ref. 3-p.176

20. Which of the following groups of instruments should be on a setup for transurethral prostatic resection?

- A. Panendoscope, telescope, ureteral catheters
- B. Resectoscope, Bakelite sheaths, cutting electrodes
- C. Cystoscope, lithotrites, urethral catheters
- D. Panendoscope, right angle telescope, Ellick evacuator

Ref. 1-p.734

21. Which of the following are the catheters of choice for dilating narrow strictures?

- A. Filiform and follower
- B. Pezzer
- C. Foley
- D. Malecot

Ref. 1-p.676

22. The concave notch in the kidney through which the ureter, arteries, and veins enter and leave is the:

- A. Nephron
- B. Medulla
- C. Hilum
- D. Cortex

Ref. 1-p.664

23. An abnormal accumulation of fluid within the scrotum around the capsule of the testis and the tunica vaginalis is a:

- A. Varicocele
- B. Cystocele
- C. Spermatocele
- D. Hydrocele

Ref. 1 – p. 713

24. During the course of transurethral surgery, the hazards of contamination and short circuits from electrical apparatus are increased due to:

- A. The use of nitrous oxide gas as an anesthetic agent
- B. A relative humidity of 55% in the cysto room
- C. Placement of the indifferent electrode under the patient
- D. The fluid used for distending and irrigating the bladder

Ref. 1-p.736

25. Saline and distilled water are not the irrigating solutions of choice for TUR operations because they are:

- A. Nonelectrolytic and nonhemolytic
- B. Hypertonic and hypotonic
- C. Electrolytic and hemolytic
- D. Isotonic and autogenous

Ref. 3-p.171

Urology II

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. **Which solutions may be used for irrigation during a TUR operation: 1.Glycine, 2. saline, 3.sorbitol, 4. distilled water?**
 - A. 1 and 3
 - B. 2, 3, 4
 - C. 1, 2, 3
 - D. All of the above

Ref. 3-pp.276-277; Ref. 5-pp.31-33

2. **Which instrument(s) for transurethral surgery use(s) electrical current to resect tissue and coagulate bleeding vessels?**
 - A. Endoscope
 - B. Urethroscope
 - C. Resectoscope
 - D. All of the above

Ref. 2 - p. 467; Ref. 3 - p. 271; ref. 5 - p. 80

3. **Which muscles are split and retracted in a flank incision for surgery on kidneys and ureters?**
 - A. Superior rectus and plastysma
 - B. Latissimus dorsi and trapezius
 - C. Rectus abdominis and serratus posterior
 - D. Internal and external oblique

Ref. 2 - p. 424; Ref. 4 - p. 334

4. **The _____ glands in the male are homologues to the _____ glands in the female**
 - A. Skene's, Bartholin's
 - B. Cowper's, Bartholin's
 - C. Bartholin's, Skene's
 - D. Bartholin's, Cowper's

Ref. 2-pp.415.811

5. **Which of the following approaches can be used for removal of the prostate gland: 1. perineal, 2. retropubic, 3. suprapubic, 4. transurethral?**
 - A. Only 3
 - B. 3 and 4
 - C. All but 1
 - D. All of the above

Ref. 1-p.664; Ref. 4-p.345

6. Which type of catheter has an angulated tip?

- A. Malecot
- B. Coude
- C. Whistle tip
- D. Pezzar

Ref. 3-p.120; Ref. 5-p.106

7. Which procedure(s) may be performed in the cysto room: 1. urethroscopy, 2. cystolitholapaxy 3. cystoretrograde, 4. meatotomy?

- A. 2, 3, 4
- B. 1, 3
- C. 1, 3, 4
- D. All of the above

Ref. 5-pp.11-12

8. Suspension of the bladder neck to the posterior surface of the pubis in the female patient for stress incontinence is a:

- A. Cystolithotomy
- B. Le fort procedure
- C. Marshall-Marchetti operation
- D. Shirodkar procedure

Ref. 2 - p. 446; Ref. 3 - p. 242

9. The excision of the tunica vaginalis of the testis is:

- A. Vasectomy
- B. Epididymectomy
- C. Varicocelectomy
- D. Hydrocelectomy

Ref. 1 - p. 662; Ref. 2 - p. 452

10. Which is not a postoperative complication of radical resection of the prostate?

- A. Temporary incontinence
- B. Impotence
- C. Epididymitis
- D. Sterility.

Ref. 3-p. 256

11. A congenital defect in which the urinary meatus is located on the ventral surface of the penis is _____; a dorsal urinary meatus is _____.

- A. Cryptorchidism, chordee
- B. Hypospadias, epispadias
- C. Chordee, Cryptorchidism
- D. Epispadias, Hypospadias

Ref. 1 - p. 659; Ref. 2 - p. 457; Ref. 3 - p. 33

12. Urinary tract calculi may form such element as: 1. calcium. 2 Magnesium ammonium phosphate, 3.calcium carbonate, 4.calcium phosphate, 5.uric acid.

- A. Only 2
 - B. 1, 3, 4
 - C. All but 2
 - D. All of the above
- Ref. 2-p.419; Ref. 3-p.35

13. Which of the following conditions would be a contraindication to hemodialysis:1.severe hypotension,2.septicemia,3.acidosis,4.cardiac irregularities?

- A. 2, 3, 4
 - B. All but 3
 - C. Only 2 and 4
 - D. All of the above
- Ref. 3-p.834

14. Gout is a diseases caused by excessive accumulation of _____ in the blood.

- A. Magnesium phosphate
 - B. Uric Acid
 - C. Calcium
 - D. Ammonium Phosphate
- Ref. 1-p.834

15. The first step in determining relative compatibility of donor and recipient in kidney transplant is:

- A. Tissue typing
 - B. Antigen identification in the donor
 - C. Identification of blood type
 - D. Antigen identification in the recipient
- Ref. 2-p.431; Ref. 3-p.329

16. Which statement concerning the arteriovenous shunts used for hemodialysis is not true?

- A. Lower extremity shunt requires initial avoidance if weight bearing
 - B. Shunt are rarely placed above level of elbow or knee
 - C. Blood pressure may be taken in the cannulated arm when shunt is clamped
 - D. Venipuncture for blood specimens are no longer necessary.
- Ref. 3-pp.316-317

17. Which catheter is used to dilate a urethral stricture?

- A. Filiform
 - B. Coude
 - C. Robinson
 - D. Whistle tip
- Ref. 2-p.419; Ref. 5-p.111

18. Which statement concerning kidney transplant is not true?

- A. The donor kidney is placed in the iliac fossa
- B. The donor ureter is implanted into the bladder
- C. The donor renal artery is anastomosed to the recipient renal artery
- D. The donor kidney is reverse on implantation

Ref. 2-p.432; Ref. 3-p.327

19. Trace the formation and excretion of urine:1. proximal tubule,2.loop of Henle, 3. collecting tubule, 4. Bowman's capsule, 5. ureter, 6. glomeruli, 7. urethra, 8. bladder,9.renal pelvis.

- A. 4, 1, 6, 3, 9, 2, 7, 8, 5
- B. 9, 3, 6, 4, 1, 7, 8, 2, 5
- C. 6, 4, 1, 2, 3, 9, 5, 8, 7
- D. 3, 9, 6, 2, 7, 5, 1, 4, 7

Ref. 1-p.620

20. A radiographic study outlining the kidney pelvis and ureters by an injection of radiopaque dye through ureteral catheters is a/an:

- A. Retrograde pyelogram
- B. Cystourethrogram
- C. Intravenous pyelogram
- D. Urogram

Ref. 1-p.622; Ref. 3-p.110; ref-p.13

21. Which statement concerning a nephrostomy tube is not true?

- A. It is inserted directly into the kidney
- B. It irrigated only on specific order
- C. It is clamped routinely every eight hours
- D. It obstructed , pyelonephritis may result

Ref. 1-p.651; Ref. 3-.195

22. The procedure to correct a redundant kidney pelvis and stenotic area of the ureter is a:

- A. Marshall-Marchetti operation
- B. Ureteroureterostomy
- C. Pyelolithotomy
- D. Foley Y-V pyeloplasty

Ref. 2-p.429; Ref. 3-p.195

23. Which statement concerning ileal conduit is not true?

- A. The ureters are implanted in the terminal ileum
- B. The proximal end of the conduit is sutured closed
- C. The distal end of the conduit is brought out as a stoma
- D. The conduit as reservoir for urine.

Ref. 2-p.493; Ref. 3-p.214

24. The usual first symptom of renal tumor is:

- A. Flank pain
- B. Painless hematuria
- C. Oliguria
- D. Nocturia

Ref. 1 - p. 650; Ref. 3 - p. 65; Ref. 4 - p. 335

25. Which statement concerning current dialysis therapy is not true?

- A. It is indicated with a serum potassium greater than 7mEq
- B. A unit of blood is used to prime the system
- C. It can be used for salicylate poisoning
- D. Heparin is administered during the procedure

Ref. .3-pp.313-314,317-318

Orthopaedics I

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. Cords of strong, elastic fibrous tissue which attach muscle to bones are:

- A. Tendons
- B. Cartilage
- C. Ligament
- D. Synovial Membranes

Ref. 6-p.15

2. In _____ of a fractured bone, the ends of the fragments become sclerotic and resistant to the normal healing process.

- A. Delayed union
- B. Malunion
- C. Prolonged Union
- D. Nonunion

Ref. 1-p.815

3. Plaster of paris should be dipped into water no warmer than room temperature (70-75F) because the chemical reaction that occur is:

- A. Hyperthermal
- B. Endothermal
- C. Exothermal
- D. Hypothermal

Ref. 5-p.62

4. A bone graft usually taken from the patient's tibia and used as an onlay graft across an ununited fracture site by means of screws is:

- A. An autogenous cancellous graft
- B. A homogenous cortical graft
- C. An autogenous cortical graft
- D. A homogenous cancellous graft

Ref. 1-p.828; ref 4-p.261

5. Compression of the median nerve or its blood supply in a canal at the wrist is know as:

- A. A ganglion
- B. De Quervain's tenosynovitis
- C. Carpal tunnel syndrome
- D. Dupuytren's contracture

Ref. 4-p.205

6. A plaster bandage roll is soaked through and ready for application when:

- A. It in the water for two minutes
- B. The outer wrapper peels off easily
- C. Air bubbles begins to rise
- D. Air bubbles cease to appear

Ref. 2-p.163

7. Mr. B is scheduled for a biopsy of a bone tumor, possibly an amputation. In which of the following diagnosis would the amplitude not be necessary?

- A. Osteochondroma
- B. Osteosarcoma
- C. Chondrosarcoma
- D. All of the above

Ref. 4-p.217

8. A closed cavity between muscles, tendons, and bones that is lined with synovium, contains a small amount of synovial fluid and acts a gliding , mechanism is:

- A. Cartilage
- B. A callus
- C. A bursa
- D. A fibrous capsule

Ref. 3-p.881

9. The healing process of fracture begins first with _____ formation. This, then, is replaced by _____ tissue which eventually forms new bone, known as _____.

- A. Calcium, areolar, cartilage
- B. Blood clot, granulation, callus
- C. Collagen, periosteal, cartilage
- D. Fibrin, cartilage, periosteum

Ref. 1-p.814; Ref. 4-p.255

10. The common name for hallux vaigus is :

- A. Hammer toes
- B. Flat feet
- C. Clubfoot
- D. Bunions

Ref. 3-p.884

11. A femoral fracture most often seen in obese children is:

- A. Coxa plana
- B. Impacted intertrochanteric
- C. Slipped femoral epiphysis
- D. Spontaneous greenstick

Ref. 1-p.832

12. Which if the following are the surgical procedures for chronic osteomyelitis?

- A. Debridement and osteotomy
- B. Synovectomy and arthrodesis
- C. Arthroplasty and capsulotomy
- D. Sequestrectomy and saucerization

Ref. 4-p.90

13. Intramedullary rods are used in which of the following types of fractures?

- A. Intertrochanteric
- B. Shaft fractures of long bones
- C. Greenstick
- D. All of the above

Ref. 5-p.90

14. For which of the following complications following a fracture must a patient be closely observed?

- A. Shock
- B. Fat embolism
- C. Thromboembolism
- D. All of the above

Ref. 3-p.886

15. A bone disorder in which there is an imbalance between bone formation and bone reabsorption (decreased density of bone) is:

- A. Osteoporosis
- B. Osteomyelitis
- C. Osteomalacia
- D. Paget's disease

Ref. 3-p.886

16. A chronic systemic disease of unknown causes, characterized by recurrent inflammation involving the synovium of joints is:

- A. Tenosynovitis
- B. Osteoarthritis
- C. Ankylosing spondylitis
- D. Rheumatoid arthritis.

Ref. 3-p.870

17. In an automobile, Mrs. A. sustained a left leg fracture below the hip joint, a left arm fracture with the bone fragments wedged together, and a right forearm fracture with slanting line of breakage. Her fractures are listed as:

- A. Left extracapsular, comminuted left ulna, spiral right humerus
- B. Left intertrochanteric, impacted left humerus, oblique right radius.
- C. Left intracapsular, compound left humerus, transverse right radius
- D. Left subcapital, depressed left ulna, longitudinal right humerus

Ref. 1 - p. 811, 832; Ref. 5 - p. 88, 89

18. Skeletal muscles are:

- A. Striated voluntary
- B. Smooth involuntary
- C. Either pronators or supinators
- D. Always in pairs-one contracts as one relaxes

Ref. 6 – p. 11

19. Sequestrum is:

- A. New bone
- B. Bone covering
- C. Dead bone
- D. Infected bone

Ref. 3- p.868

20. A plaster cast applied for fracture of the cervical or upper thoracic vertebrae is a:

- A. Minerva jacket
- B. Spica
- C. Risser jacket
- D. Turnbuckle jacket

Ref. 2-p.165

21. Mr. C's diagnosis is torn semilunar cartilage. He is scheduled for:

- A. Putti-Platt operation
- B. Arthrotomy for joint mice
- C. Arthrotomy and meniscectomy of the knee
- D. Keller procedure

Ref. 1-p.849

22. Fixation devices of one metal should not be implanted in the body with those of another metal:

- A. To avoid possible electrolytic reaction
- B. To avoid scratches
- C. To reduce fatigue stress
- D. All of the above

Ref. 2 - p. 161; Ref. 5 - p. 90

23. The degree of pressure and the period of time a pneumatic tourniquet can be safely inflated on an extremity depends on which of the following factors?

- A. Patient's age and blood pressure rate
- B. Size of the extremity
- C. Vascular supply to the extremity
- D. All of the above

Ref. 1-p.821

24. In an unreduced _____ fracture, the lower end of the _____ is displaced posteriorly

- A. Pott's humerus
- B. Colles', ulna
- C. Bennett's, fibula
- D. Colles', radius

Ref. 3-p.855

25. Eighteen-month-old Johnny sustained a greenstick fracture of his right radius and a simple fracture of his right femur in a fall from his highchair. The fractured radius was treated with _____ and the fractured femur with _____.

- A. Skeletal traction, plaster cast
- B. Closed reduction and plaster cast, skin traction
- C. Skin traction, open reduction
- D. Open reduction, skeletal traction

Ref. 3-p.842

Orthopaedics II

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. Which clinical sign of a fracture should not be tested for in emergency treatment?

- A. Deformity
- B. Point tenderness
- C. Loss of use
- D. Crepitus

Ref. 1-pp.89, 90; ref. 5-p. 126

2. Plaster of Paris rolls dipped in water _____ produce a/an _____ reaction and a _____ cast.

- A. Below 75°F, endothermal, hot
- B. Above 50°F, hyperthermal, cold
- C. Below 80°F, hypothermal, cold
- D. Above 75°F; exothermic, hot

Ref. 4-p. 62

3. In a _____ fracture, the break runs parallel with bone; in a/an _____ fracture, the bone is splintered into fragments; and in a/an _____ fracture, the break coils around the bone.

- A. Transverse, pathologic spiral
- B. Longitudinal, compound, oblique
- C. Transverse, impacted, oblique
- D. Longitudinal, comminuted, spiral

Ref. 1-p. 88; ref 4.-pp.88, 89

4. Which structure may be injured by the femoral head or acetabulum in posterior dislocation of the hip?

- A. Popliteal artery
- B. Sciatic nerve
- C. Femoral artery
- D. Ilio-inguinal nerve

Ref. 2-p. 274; ref. 5- p. 136

5. A teen-age girl returns to the ED still complaining of pain ten days after receiving minor treatment for a sprained wrist. The diagnosis is:

- A. Fractured navicular bone
- B. Torn carpal ligament
- C. Dislocated carpus
- D. School aversion

Ref. 2-p. 246

6. In children, the usual treatment for fractures is/are:

- A. Open reduction and casting
- B. Intramedullary nailing
- C. Skeletal traction
- D. Nonoperative

Ref. 2 – p. 335

7. Growth disturbance occurs after epiphyseal injury because of:

- A. Damage to epiphyseal surface
- B. Damage to blood supply to epiphysis
- C. Epiphyseal plate separation
- D. Avulsion of the periosteum

Ref. 2-pp. 329, 331

8. Intercondylar fractures of the lower humerus usually result from:

- A. Attempting to break a forward fall with an extended rigid arm
- B. A blow or fall directly on the elbow
- C. An acute twist of the arm
- D. None of the above

Ref. 2-pp. 229, 230

9. Which statement concerning hip fracture is not true?

- A. Pain is usually felt in the groin or above the knee
- B. Extremity usually appears shortened and falls into internal rotation
- C. X-rays in two planes are necessary to confirm diagnosis
- D. Patient with impacted femoral neck fracture may walk unaided

Ref. 1-p. 107; ref. 2-pp. 265, 266

10. In the differential diagnosis of fracture vs. dislocation, which clinical sign is not Present with a dislocation?

- A. Point tenderness
- B. Deformity
- C. Local swelling
- D. Crepitus

Ref. 3-pp. 186, 187; ref. 5-p. 126

11. Adequate immobilization of a metacarpal fracture is usually obtained with a/an:

- A. Plaster cast over forearm and hand with an incorporated metal finger splint
- B. Elastic bandage
- C. Tongue blade and adhesive tape dressing
- D. Open reduction

Ref. 2-pp. 254, 259

- 12. Primary dislocation of the shoulder occurs from forced _____ and _____ rotation of the arm, displacing the humeral head out of the _____ cavity.**
- A. Abduction, external, acromioclavicular
 - B. Abduction, external, glenoid
 - C. Abduction, internal, acromioclavicular
 - D. Abduction, internal, glenoid
- Ref. 2-p. 218
- 13. Which of the following would most likely cause shock in a patient-1. pelvic fracture, 2. bimalleolar fracture-dislocation, 3. impacted femoral neck fracture, 4. femoral shaft fracture?**
- A. All of the above
 - B. Only 1
 - C. 1, 3, 4
 - D. 1 and 4
- Ref. 1-pp. 107, 137; ref. 2-pp. 266, 267, 323
- 14. Which method of splinting would not be appropriate for immobilizing a fractured hip?**
- A. Traction splint
 - B. Coaptation splint
 - C. Long board splint (ankle to armpit)
 - D. Tying both legs together
- Ref. 1-pp. 96-100; ref. 5-pp. 132-136
- 15. Which statement concerning emergency splinting is not true?**
- A. Never try to reduce a dislocation
 - B. Use traction splints on fractures of femur and humerus
 - C. Do not remove patient's shoe when applying ankle hitch
 - D. Inflate air splint only by mouth
- Ref. 1-pp. 96-100; ref.- pp. 132-136
- 16. Without the aid of a physician, which severely angulated fracture(s) should be reduced before splinting-1. shoulders, 2. olecranon, 3. radius and/or ulna, 4. knee?**
- A. Both 1 and 2
 - B. All but 3
 - C. Only 1
 - D. Only 3
- Ref. 1-p. 95; ref. 5-pp. 132-136
- 17. A young man complains of severe pain in the edematous, discolored area around his ankle. His foot is dorsiflexed and cannot be plantar flexed. The diagnosis is:**
- A. Fractured calcaneus
 - B. Fractured lateral malleolus with torn deltoid ligament
 - C. Ruptured Achilles tendon
 - D. Dislocated foot
- Ref. 3-p. 345; ref. 5-p. 128

18. A child with a supracondylar fracture of the humerus complains of constant pain, and pallor, absence of pulse and paralysis are noted in the arm. The diagnosis is _____, a mechanical blockage of the _____ at the fracture site.

- A. Arterial spasm, radial artery
- B. Volkmann's ischemia, brachial artery
- C. Transected nerve, median nerve
- D. Palsy, radial nerve

Ref. 2-p. 349

19. The complete displacement of the normal articulating surfaces of two or more bones is _____ but it is _____ if a portion of the articulating surfaces remain in contact,

- A. Hyperextension, slipped epiphysis
- B. Dislocation, subluxation
- C. Displaced fracture, slipped epiphysis
- D. Subluxation, dislocation

Ref. 5 –pp. 130, 135

20. Which of the following should be splinted before the patient is moved- 1. fractured radius, 2. dislocated humeral head, 3. severely sprained ankle, 4. dislocated phalanx?

- A. All but 3
- B. Only 1 and 2
- C. All of the above
- D. All but 4

Ref. 5-pp. 130, 135

21. Which statement concerning greenstick fracture is not true?

- A. Fracture heals in six to eight weeks
- B. Occurs only in children
- C. Fracture must be completed before casting
- D. Open reduction with casting is unusual treatment

Ref. 1-p. 88; ref. 2-pp. 360; 362

22. Displacement and angulation of a humeral shaft fracture can occur if the _____ muscle _____ and the _____ muscle _____.

- A. Pectoralis major, adducts, deltoid, abducts
- B. Latissimus dorsi, abducts, biceps, adducts
- C. Pectoralis major, abducts, deltoid, adducts
- D. Triceps, adducts, latissimus dorsi, abducts

Ref. 2- p. 224

23. Displaced end of a fractured clavicle can pass into the thoracic outlet and injure the _____ and _____.

- A. Axillary nerve, pulmonary vein
- B. Subclavian artery or vein, brachioplexus
- C. Epiphyseal plate, median nerve
- D. Gastrocnemius muscle, carotid artery

Ref. 5-pp. 133, 145

24. Radial nerve damage in a patient with midshaft humeral fracture may be indentified by -1. inability to extend fingers, 2. radiating pain to elbow, 3. absence of sensation to pinprick over dorsum of forearm, 4. ability to flex forearm.

- A. Only 1
- B. 1, 2, 3
- C. Both 1 and 3
- D. All of the above

Ref. 2- p. 379; ref. 5- p. 133

25. An accident victim's x-rays indicate a fractured right collarbone, right arm with bone fragments wedged together and right elbow. The fractures are listed as right:

- A. Scapula, spiral ulna and greater tubercle
- B. Clavicle, impacted humerus and olecranon
- C. Scapula, comminuted radius and olecranon
- D. Clavicle, compound ulna and greater tubercle.

Ref. 4 - pp. 88, 89; ref. 5 - p. 127

Orthopaedics III

Check the lettered phrase below that best answers or completes each question or statement. Reference number following each question refers to reference listed with the answers. To find the correct answers and references, refer to page number listed in the index.

1. Following a football injury, an athlete is unable to plantar flex his ankle. The diagnosis is:

- A. Ruptured Achilles tendon
- B. Shin splints
- C. Slipped capital femoral epiphysis
- D. Subluxation of peroneal tendons

Ref. 1 – p. 223; ref. 6 – p. 128

2. Bone cement or _____ adhere to the _____ but not to the _____.

- A. Butyl cyanocrylate, metal, bone
- B. Polytetrafluoroethylene, bone, metal
- C. Methyl methacrylate, prosthesis, bone
- D. Anhydrous calcium sulfate, bone, polyethylene

Ref. 2 – p. 267, 369; ref. 5 – pp. 531-538

3. A benign hernia of the synovium from an intercarpal joint is known as _____, while an inflammation of the synovium surrounding a tendon is known as _____.

- A. Tenosynovitis, a ganglion
- B. Bursitis, a sprain
- C. A ganglion, tenosynovitis
- D. A sprain, bursitis

Ref. 4 – pp. 73-79

4. Bones grow in diameter by the combined action of:

- A. Osteoblasts and osteoclasts
- B. Matrix and collagen
- C. Diaphysis and epiphysis
- D. Ossification and osteoporosis

Ref. 1 – pp. 64, 105

5. In bone grafting, spongy or _____ bone is obtained from the _____; while solid or _____ bone is removed from the _____.

- A. Cortical, humerus, cancellous, rib
- B. Cancellous, tibia, cortical, crest of ilium
- C. Cortical, rib, cancellous, humerus
- D. Cancellous, crest of ilium, cortical, tibia

Ref. 2 – pp. 368-369; ref. 5 – pp. 511

6. The hip bone is formed by the fusion of the:

- A. Coccyx, ischium, sacrum
- B. Sacrum, innominate, acetabulum
- C. Ischium, pubis, trochanter
- D. Ilium, ischium, pubis

Ref. 1 – pp. 81, 83

7. The operative treatment employed for Dupuytren's contracture is:

- A. Flexor tendon graft
- B. Carpal tunnel release
- C. Peripheral nerve graft
- D. Palmar fasciectomy

Ref. 5 – pp. 613

8. The common name of hallux valgus is:

- A. Hammer toes
- B. Bunions
- C. Club foot
- D. Flat feet

Ref. 2 – p. 375; ref. 4 - p

9. Which of the following tendons form the rotator cuff that circles the neck of the humerus: 1. supraspinatus, 2. annular, 3. infraspinatus, 4. cruciate, 5. teres minor?

- A. 1 and 3
- B. 1, 3, 5
- C. 2, 4, 5
- D. All of the above

Ref. 4 - p. 178; ref. 5 - p. 487; ref. 6 - . 128

10. The objective in treating fractured clavicle is to:

- A. Prevent flail chest
- B. Immobilize the olecranon
- C. Hold the shoulder in normal position
- D. Prevent ischemic contracture

Ref. 3 – p. 1300; ref. 4 – pp. 136- 137

11. Forms of skin traction for fracture treatment include: 1. Buck's extension, 2. Crutchfield tongs, 3. Russell's traction, 4. body spica.

- A. 1 and 3
- B. 2 and 4
- C. 1, 3, 4
- D. All of the above

Ref. 3 – pp. 1285-1286, 1305; ref. 5 – pp. 508, 510

12. A fracture with bone splintered into fragments is a (an) _____; while one with broken bone wedged into other break is a (an) _____ fracture.

- A. Pathologic, depressed
- B. Oblique, spiral
- C. Comminuted, impacted
- D. Greenstick, intracapsular

Ref. 3 – pp. 1292-1293

13. Place the following stages of fracture healing in the correct sequence: 1. callus ossification, 2. hematoma, 3. consolidation, 4. cellular proliferation, 4. callus formation.

- A. 4, 5, 2, 1, 3
- B. 2, 4, 5, 1, 3
- C. 4, 2, 1, 3, 5
- D. 2, 1, 4, 3, 5

Ref. 3 pp – pp. 1294-1295

14. An incomplete displacement of articulating ends of two or more bones is a:

- A. Sprain
- B. Dislocation
- C. Stress fracture
- D. Subluxation

Ref. 4 -. 75; ref. 6 -. 126

15. Which statement concerning emergency splinting is false?

- A. Splint a dislocated joint in position found
- B. Check peripheral pulses proximal to injury for impaired circulation
- C. Straighten a severely angled fracture for splinting
- D. Inflate air splints by mouth

Ref. 3 – p. 1294

16. In the lower extremity, the fibula, at its proximal end, articulate with the _____; while the tibia, at its distal end, articulates with the _____.

- A. Talus, femur
- B. Malleolus, calcaneus
- C. Femoral condyle, patella
- D. Tibia, fibula

Ref. 1 pp. 81, 101.

17. Which statement concerning preparation of patient with an open fracture for transport is false?

- A. Do not irrigate the wound with saline
- B. No attempt is made to reduce fracture
- C. Cover wound with a dry, sterile dressing
- D. Splint and immobilize joints above and below fracture

Ref. 3 – p. 1294; ref. 6 – p. 128

18. Which statement regarding epiphyses is false?

- A. Growth in long bones occurs through ossification only in the superior epiphyseal plates
- B. They are the ends of long bones
- C. They consist of porous cancellous bone with outer layer of compact bone
- D. Bone growth ceases when epiphyseal cartilage is ossified

Ref. 1 – pp. 60-64

19. Infection involving all or parts of a bone is _____; and the resulting dead bone is called _____.

- A. Osteomalacia, dysplasia
- B. Osteomyelitis, sequestrum
- C. Osteoarthritis, necrosis
- D. Osteoporosis, calcific bursitis

Ref. 3 – p. 1321

20. The most serious complication of a supracondylar fracture of the humerus is _____, which is the result of compression or damage to the _____.

- A. Erb's palsy, ulnar nerve
- B. Derangement, deltoid muscle
- C. Bell's palsy, radial nerve
- D. Volkmann's contracture, brachial artery

Ref. 3 – pp. 1301; ref. 4 – pp. 250-251

21. A fracture in which one side of a bone is broken and the other side is bent is a (an) _____ fracture.

- A. Spiral
- B. Greenstick
- C. Longitudinal
- D. Oblique

Ref. 3 – pp. 1292-1293; ref. 4. pp. 261-262

22. The sternoclavicular and tibiofibular joints are _____ joints; while the knee and elbow joints are _____ joints.

- A. Saddle, ball and socket
- B. Fibrous, pivot
- C. Cartilaginous, ellipsoidal
- D. Gliding, hinge

Ref. 1 – pp. 92, 102

23. A muscle that decreases the angle of a joint is a (an) _____; while a muscle that moves the bone away from the midline is a (an) _____.

- A. Extensor, adductor
- B. Tensor, rotator
- C. Flexor, abductor
- D. Depressor, pronator

Ref. 1 – p. 123

24. The possible rupture of which tendons should be considered in an injury to the olecranon?

- A. Pronator teres and deltoid
- B. Brachialis and biceps
- C. Adductor brevis and vastus medialis
- D. Triceps and gastrocnemius

Ref. 6 – p. 128

25. Which statement concerning the use of screws as fixation implants is false?

- A. Screws alone may be used for fixation of oblique or spiral fractures of long bones
- B. Cancellous bone gives the best fixation
- C. They must be long enough to penetrate both cortices
- D. Cortical lag screws are used to hold compression plates in place

Ref. 2 – pp. 372-373

The Practical Examination:

The Practical Portion of the examination evaluates the candidate's ability to competently and smoothly perform tying and suturing. The following is the list of skills that you will be evaluated on, by an examiner, at your testing center.

Note: You must successfully pass this portion of the examination, in order to fully and completely pass the ABSA Certification Examination. *You will be allowed a maximum of two (2) attempts at each skill.* A failure on this portion of the examination will require retesting of the practical portion of the examination, at a later time, and the paying of a full retesting fee.

Skills Evaluated	Above Average (High Pass)	Average (Pass)	Below Average (Minimal Pass)	Unacceptable (Failed Task)
One Handed Tying				
Two Handed Tying				
Instrument Tying				
Deep Tying				
Tying Under Tension				
Surgeon's Knot				
Figure-of-Eight Stitch				
Simple Running Stitch				
Mattress Stitch				
Running Subcuticular Stitch				

This is a required element of the ABSA Certification Examination. If you are not current on your skills or have not practiced them for sometime; you may not pass this portion of the examination. Therefore, the suggestion is ***Practice, Practice, Practice!***

1. Principles of Aseptic Technique I

		10.A	18.A
		11.B	19.D
		12.A	20.D
	5.D	13.B	21.D
1. C	6.D	14.A	22.C
2. D	7.D	15.C	23.C
3. C	8.B	16.C	24.B
4. B	9.B	17.A	25.D

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2. Principles of Aseptic Technique II

		10. B	18. C
		11. B	19. D
		12. D	20. B
	5. A	13. C	21. B
1. D	6. C	14. B	22. D
2. C	7. B	15. D	23. B
3. B	8. B	16. A	24. A
4. C	9. C	17. D	25. C

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10. Electrolytes and Metabolism II

		10. D	18. A
		11. C	19. D
		12. D	20. A
	5. B	13. A	21. D
1. B	6. D	14. D	22. B
2. B	7. C	15. D	23. A
3. C	8. D	16. A	24. D
4. C	9. A	17. B	25. D

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14. Sutures and Wound Repair I

		10. D	18. A
		11. B	19. B
		12. C	20. C
	5. D	13. B	21. B
1. B	6. C	14. B	22. C
2. B	7. C	15. B	23. D
3. C	8. B	16. C	24. A
4. D	9. C	17. D	25. B

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17. General Surgery I

		10. C	18. D
		11. D	19. B
		12. D	20. A
	5. D	13. D	21. D
1. D	6. C	14. B	22. D
2. C	7. B	15. B	23. D
3. A	8. C	16. C	24. A
4. D	9. C	17. C	25. B

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18. General Surgery II

		10. D	18. C
		11. A	19. B
		12. C	20. B
	5. D	13. B	21. A
1. B	6. D	14. A	22. A
2. D	7. D	15. C	23. A
3. D	8. A	16. A	24. B
4. B	9. D	17. C	25. A

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19. General Surgery III

		10. A	18. C
		11. A	19. B
		12. C	20. D
	5. C	13. D	21. D
1. C	6. D	14. B	22. D
2. C	7. B	15. B	23. A
3. B	8. D	16. B	24. C
4. C	9. D	17. C	25. A

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20. General Surgery IV

		10. D	18. B
		11. B	19. B
		12. B	20. A
	5. C	13. D	21. C
1. B	6. D	14. C	22. B
2. D	7. C	15. A	23. B
3. A	8. A	16. B	24. D
4. A	9. D	17. D	25. B

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21. Gynecology I

		10. D	18. B
		11. C	19. D
		12. C	20. D
	5. C	13. D	21. C
1. B	6. C	14. B	22. B
2. D	7. D	15. B	23. A
3. C	8. C	16. C	24. B
4. B	9. B	17. D	25. C

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22. Gynecology II

		10. D	18. D
		11. D	19. D
		12. C	20. B
	5. D	13. B	21. A
1. C	6. D	14. D	22. B
2. B	7. D	15. C	23. D
3. C	8. B	16. C	24. B
4. A	9. C	17. D	25. C

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23. Urology I

		10.D	18.C
		11.B	19.D
		12.D	20.B
	5.D	13.D	21.A
1. C	6.D	14.D	22.C
2. C	7.A	15.D	23.D
3. B	8.B	16.C	24.D
4. B	9.C	17.D	25.C

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24. Urology II

		10. C	18. C
		11. B	19. C
		12. D	20. A
	5. D	13. B	21. C
1. A	6. B	14. B	22. D
2. C	7. D	15. C	23. D
3. D	8. C	16. C	24. B
4. B	9. D	17. A	25. B

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29. Orthopedics I

		10.D	18.A
		11.C	19.C
		12.D	20.A
	5.C	13.B	21.C
1. A	6.D	14.D	22.A
2. D	7.A	15.A	23.D
3. C	8.C	16.D	24.D
4. C	9.B	17.B	25.B

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30. Orthopedics II

		10. D	18. B
		11. A	19. B
		12. B	20. D
	5. A	13. D	21. C
1. D	6. D	14. B	22. A
2. D	7. B	15. B	23. B
3. D	8. B	16. D	24. C
4. B	9. B	17. C	25. B

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31. Orthopedics III

		10.C	18.A
		11.A	19.B
		12.C	20.D
	5.D	13.B	21.B
1.A	6.D	14.D	22.D
2. C	7.D	15.B	23.C
3. C	8.B	16.D	24.B
4. A	9.B	17.A	25.B

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Note: The foregoing selected quizzes are excerpted from the Ethicon Self Assessment Compendium, Volume III.