

CE Exams

Alternatives to Blood Transfusions

- 1. Who was called the “bloodless surgeon of Vienna”?**
 - a. Dr Denton
 - b. Dr Lorenz
 - c. Dr Witness
 - d. Dr Kipnis
- 2. When was the first bloodless open heart surgery performed?**
 - a. 1952
 - b. 1926
 - c. 1962
 - d. 1936
- 3. _____ can be accomplished without using whole blood or blood plasma.**
 - a. Volume replacement
 - b. Transfusions
 - c. Surgery
 - d. Cell replacement
- 4. Neupogen is a man-made form of protein that stimulates the growth of ____ in the body.**
 - a. Red blood cells
 - b. Tissue
 - c. Blood flow
 - d. White blood cells
- 5. Recombinant human erythropoietin is a _____ used to stimulate the bone marrow to produce more red blood cells.**
 - a. Synthetic hormone
 - b. Tool
 - c. Method
 - d. All of the above
- 6. A few of the intraoperative surgical techniques and instruments that are available are:**
 - a. Gamma knife
 - b. Electrocautery
 - c. Argon Beam
 - d. All of the above
- 7. Argon gas prevents _____.**
 - a. Burning
 - b. Oxidation
 - c. Cell loss
 - d. Blood transfusions
- 8. Dr Reichstein said that one of the greatest skills a surgeon can possess is _____.**
 - a. To assist in surgery prep
 - b. To hold the patient’s hand
 - c. The prevention of blood loss
 - d. To calm the patient
- 9. Intraoperative blood salvage is also known as the _____.**
 - a. Cell saver
 - b. Circulator
 - c. Filter
 - d. Blood saver
- 10. The cell salvage method along with acute normovolemic hemodilution may be acceptable to many including those who object due to _____.**
 - a. Religious reasons
 - b. Sporting beliefs
 - c. Both a and b
 - d. None of the above

Alternatives to Blood Transfusions questions continued

11. Electrocautery is a safe procedure that is routinely used in surgery to remove ____.
- Unwanted tissue
 - Blood cells
 - Harmful tissue
 - Both a and c
12. Oxygent is a (n) ____ designed to augment oxygen delivery in patients.
- Technique
 - Life-saver
 - Intravascular carrier
 - Oxygen tool kit
13. The use of pharmaceutical agents, intravenous fluids and improved diagnostic procedures and surgical techniques can prevent and lessen ____ associated with surgery.
- Pain
 - Anemia
 - Vision problems
 - Hot flashes
14. Dr Lorenz developed a reputation for his ability to treat ____.
- Clubfoot
 - Hip dysplasia
 - Broken legs
 - None of the above
15. The three most commonly used vasodilators are:
- Sodium nitroprusside
 - Nitroglycerin
 - Trimethaphan
 - All of the above

Microbiology Review: Pathogens and Diseases

- 1. How many terms are there in the Linnaean system?**
 - a. 6
 - b. 7
 - c. 8
 - d. 9
- 2. Mitochondria are considered the power house of ____?**
 - a. Organisms
 - b. Cell
 - c. Membranes
 - d. Tissue
- 3. DNA is composed of two strands of alternating ____.**
 - a. Sugars and phosphates
 - b. Guanine and thymine
 - c. Cells and tissue
 - d. Membranes and nitrogenous bases
- 4. During telophase, membranes appear around each group of separated chromosomes forming new ____ completing the division of the cell.**
 - a. Nucleus
 - b. Spindle fibers
 - c. Membrane structure
 - d. Nuclei
- 5. There are four types of passive transport including:**
 - a. Osmosis
 - b. Diffusion
 - c. Filtration
 - d. All of the above
- 6. Streptococci means that bacteria cells appear in ____.**
 - a. Pairs
 - b. Clusters
 - c. Chains
 - d. Boxes
- 7. All viruses are capable of ____.**
 - a. Damage
 - b. Infection
 - c. Mutation
 - d. None of the above
- 8. Prions are unique because they lack a ____.**
 - a. Genome
 - b. Cell structure
 - c. Pair of membranes
 - d. Infectious material
- 9. ER exists in two forms:**
 - a. Bumpy and hard
 - b. Smooth and hard
 - c. Rough and smooth
 - d. Asymmetrical and smooth
- 10. ____ only applies to the formation of sex cells.**
 - a. Mutation
 - b. Meiosis
 - c. Anaphase
 - d. Separation

Taking Control of Infection Control

- 1. The CDC estimates that there are as many as ___ SSIs each year.**
 - a. 650,000
 - b. 550,000
 - c. 500,000
 - d. 1,000,000
- 2. The first component of the E3 discipline is ____.**
 - a. Empowerment
 - b. Education
 - c. Energy
 - d. Engagement
- 3. IPLS came to the conclusion that a combination of elements is crucial to reducing the number of SSIs at healthcare facilities. They do NOT include ____.**
 - a. Leadership
 - b. Communication
 - c. Collaboration
 - d. Social activities
- 4. ___ is a great tool to help staff members see where their facility and department stands in the fight against SSIs.**
 - a. Data sharing
 - b. Newsletters
 - c. Facebook posts
 - d. Team work
- 5. Which technique should be used if recapping of needles is necessary?**
 - a. Two-handed placement
 - b. Two-person method
 - c. One-handed scoop
 - d. Instrument used to recap needle
- 6. The CDC recommends patients should be resuscitated with a/an?**
 - a. Mouthpiece
 - b. Bag
 - c. Tube
 - d. Both a and b
- 7. Healthcare institutions should empower their staff by creating a (n) ____.**
 - a. Culture of accountability
 - b. Respectful environment
 - c. Open-minded atmosphere
 - d. Positive workplace
- 8. Strong and effective communication can be linked to successful ___ in the surgical suite.**
 - a. Team work
 - b. Collaboration
 - c. Surgery
 - d. Practices
- 9. Examples such as job shadowing, departmental open houses, briefing and debriefing meetings can help create a (n) ___ atmosphere among team members.**
 - a. Effective
 - b. Happy
 - c. Successful
 - d. None of the above
- 10. When staff members are ___ in their position, they care about the well-being of the patient, their team members and themselves.**
 - a. Energetic
 - b. Enthused
 - c. Engaged
 - d. Satisfied

The Modern-day C-Section

- According to the National Center for Health Statistics, the C-section rate has climbed more than 50% since _____.
 - 1973
 - 1986
 - 1996
 - 2000
- For the Caesarean section, the ____ section is the procedure most commonly used.
 - Lower uterine segment
 - Upper uterine segment
 - Bladder
 - Mid-section
- Though rarely performed today, the classical Caesarean section involves the ____ which allows a greater space to deliver the baby.
 - Longitudinal incision
 - Midline longitudinal incision
 - Midline lateral incision
 - None of the above
- When an obstetrician determines a Caesarean may be necessary, the following may be present:
 - Failed labor induction
 - Cord prolapse
 - Placental previa
 - All of the above
- A (n) ____ may result in a denser block, allowing some sensation at the surgical site.
 - Spinal block
 - Epidural
 - Anesthesia
 - IV drugs
- After anesthesia is administered, the positional effect on cardiac output is of major importance in avoiding maternal ____ and maintaining fetal well-being. .
 - Clotting
 - Cramps
 - Hypotension
 - Dizziness
- A laparotomy drape is placed on the ____.
 - Right leg
 - Chest
 - Upper thigh
 - Abdomen
- The peritoneal incision should not extend past the ____.
 - Midline
 - Belly button
 - Bladder
 - All of the above
- The baby's head is delivered through the ____ incision.
 - Uterine
 - Midline
 - Lateral
 - Peritoneal
- Post-delivery, the ____ is the most important layer to close since it is the support layer for the abdomen.
 - Peritoneal layer
 - Fascia layer
 - Stomach cavity
 - Uterine layer
- An average hospital stay for a Caesarean patient is approximately ____.
 - 24 hours
 - 1 to 3 days
 - 2 to 4 days
 - 5 to 7 days
- Complications with a Caesarean procedure may include:
 - Surgical injury
 - Wound infection
 - Endometritis
 - All of the above
- A stat emergency C-section is performed in a true obstetrical emergency, where complications of pregnancy onset suddenly during the process of labor and quick action is required to prevent the __ in the mother, the baby or both.
 - Illness
 - Complications
 - Death
 - All of the above
- A repeat Caesarean section is performed when a patient has had a previous Caesarean section and is typically performed through the _____.
 - Old scar incision
 - Open wound
 - Uterus
 - Lateral incision
- C-section rates are on the rise for a variety of reasons including _____.
 - Rising obesity rate among expectant moms
 - Increase in multiple births
 - Average age of mother is higher
 - All of the above

Short- Scar Face-Lift/Simple MACS: Minimal Access Cranial Suspension

- 1. The traditional rhytidectomy encompasses the ____ region.**
 - a. Temporal
 - b. Frontal
 - c. Parietal
 - d. Occipital
- 2. The buccinators muscle lies between the maxilla and the ____.**
 - a. Trapezius
 - b. Levator scapulae
 - c. Zygomatic arch
 - d. Mandible
- 3. The zygomatic major muscle controls the facial expressions of the ____.**
 - a. Face
 - b. Mouth
 - c. Eyes
 - d. Nose
- 4. For a simple MACS procedure, the patient is placed in a ____ position.**
 - a. Lateral
 - b. Seated
 - c. Supine
 - d. All of the above
- 5. Which instrument spreads the tissue to the deep temporal fascia?**
 - a. Senn retractor
 - b. Sutures
 - c. Metzenbaum scissors
 - d. Adson forceps
- 6. An elastic wrap should be worn for how many days following the surgery?**
 - a. 5 days
 - b. 2 days
 - c. 15 days
 - d. 7 days
- 7. A(n) ____ is used to control bleeding during the operation.**
 - a. Adson forceps
 - b. Metzenbaum scissors
 - c. Electrosurgical pencil
 - d. Senn retractors
- 8. A short-scar face-lift can be performed under ____.**
 - a. General anesthesia
 - b. With IV sedation
 - c. Local anesthetic
 - d. All of the above
- 9. The osseocutaneous ligaments support the ____ against the force of gravity.**
 - a. Skin
 - b. Facial structures
 - c. Both a and b
 - d. Neither a or b
- 10. Possible complications of a simple MACS include:**
 - a. Swelling
 - b. Bruising
 - c. Scarring
 - d. All of the above

Adenocarcinoma of the Appendix

- The appendix is a small ___ that extends off the cecum of the large intestine.**
 - Muscle
 - Organ
 - Gland
 - Ligament
- The function of the appendix is not fully understood, but some believe ____.**
 - It helps balance the intestinal tract
 - It plays a special function in the immune system
 - Only b
 - Both a and b
- Appendix cancer is rare, affecting as few as ___ Americans each year.**
 - 850
 - 1,020
 - 600
 - 200
- The majority of ___ that are classified as carcinoid are found by accident.**
 - Appendiceal Tumors
 - Non-carcinoid Tumors
 - Adenocarcinoid Tumors
 - Malignant Tumors
- In initial stages of cancer in the appendix, pain usually occurs in the ____.**
 - Upper left quadrant
 - Lower right quadrant
 - Stomach
 - Lower right thigh
- An appendectomy is usually performed if the carcinoid tumor is less than ___ in size with no metastasis.**
 - 1 cm
 - 11 cm
 - 2 cm
 - 0.5 cm
- If the carcinoid has metastasized to the liver, the recommended surgery is ___ with cytoreductive surgery and hepatic resection.**
 - Colectomy
 - Hemicolectomy
 - Right hemicolectomy
 - Right colectomy
- An appendectomy procedure includes usage of the following:**
 - Suction apparatus
 - Basin set
 - Electrosurgical pencil
 - All of the above
- This incision is usually used to begin the removal of the appendix:**
 - Crile
 - McBurney's
 - Longitudinal
 - Cherney
- Depending on the surgeon's preference, the crushed base of the appendix is amputated with (a) ____.**
 - Scissors
 - Scalpel
 - Electrosurgical pencil
 - Any of the above
- The removal of the appendix may also be performed via (a) ____.**
 - Laparoscopic approach
 - Laparotomy
 - Fistulotomy
 - Open Cholecystectomy
- If cancer has not spread past the original site and has not invaded the organ, it is considered to be ____.**
 - Carcinomic
 - Carcinoma in situ
 - Malignant
 - Benign
- Malignant tumors in the ___ that occur outside of the lymphatic tissue are considered extranodal lymphomas.**
 - Stomach
 - Brain
 - Both a and b
 - Neither a nor b
- During an appendectomy, the surgical technologist should gently push the stump into the ___ with the Crile hemostat.**
 - Stomach
 - Lumen
 - Intestine
 - Heart
- In which procedure is the ascending colon removed along with the appendix?**
 - Right hemicolectomy
 - Right colectomy
 - Colectomy
 - All of the above

Single – Site Laparoscopic Total Hysterectomy

- Advantages of LESS include ____.**
 - Shorten hospital stay
 - Faster recovery time
 - Reduced bleeding
 - All of the above
- The patient needs to be placed in the __ position for a single-site laparoscopic hysterectomy.**
 - Supine
 - Lithotomy
 - Reverse Trendelenburg
 - Kraske
- A/an ____ is used to perform ligation of the round ligaments.**
 - Electrosurgical pencil
 - Scissors
 - Ultrasonic scalpel
 - Curved Forceps
- Trocars remain in place as the surgeon checks for ____.**
 - Hemostasis
 - Instruments
 - Blood pressure
 - Hemolysis
- Complications from this procedure can include ____.**
 - Bowel injury
 - Loss of appetite
 - Nausea
 - Loss of vision
- With some of the studies that have been conducted, one of the biggest benefits for patients undergoing LESS procedures is ____.**
 - Less operation time
 - Questionable aesthetics
 - Less prep time
 - Less postoperative pain
- Following the procedure, the patient is monitored for ____.**
 - Fluid maintenance
 - Pain
 - Voiding
 - All of the above
- If spontaneous voiding does not occur following the operation, the ____ may be drained.**
 - Wound site
 - Bladder
 - Bowels
 - Stomach
- During the procedure, a ____ incision is performed to open the peritoneal cavity.**
 - Lateral
 - Distal
 - Longitudinal
 - Inferior
- The pneumoperitoneum is released after the pelvis is ____ and suctioned.**
 - Palpated
 - Irrigated
 - Sutured
 - Cauterized

Sterile Processing: The Other Side of Surgical Services

- 1. An SPD technician's expertise includes:**
 - a. Decontamination methods
 - b. Packaging material
 - c. Sterilization parameters
 - d. All of the above
- 2. PPE includes.**
 - a. Sleeved gown
 - b. Jeans
 - c. Contacts
 - d. Booties
- 3. To loosen bioburden, the SPD technician may opt to soak or spray instruments with ____.**
 - a. Water
 - b. Enzymatic solution
 - c. Antibacterial spray
 - d. Clorox
- 4. Mechanical cleaning may be used in conjunction with ____ cleaning.**
 - a. Spray
 - b. Soak
 - c. Manual
 - d. Scrubbing
- 5. A washer-sterilizer is a form of what kind of decontamination?**
 - a. Manual
 - b. Chemical
 - c. Mechanical
 - d. None of the above
- 6. To prevent cross-contamination, decontaminated instruments are placed in the ____.**
 - a. Clean area
 - b. Dirty area
 - c. OR
 - d. Hallway
- 7. A count sheet is used to track instrument sets an SPD tech ____.**
 - a. Cleans
 - b. Sterilizes
 - c. Packs
 - d. Assembles
- 8. The CDC recommends which method to sterilize items that can withstand heat and moisture?**
 - a. Eto
 - b. Manual
 - c. Steam
 - d. Peracetic acid
- 9. Exposure time during steam sterilization features how many elements?**
 - a. 5
 - b. 4
 - c. 2
 - d. 6
- 10. After about 20 minutes, a component in blood begins to cause damage that can lead to ____ of instruments.**
 - a. Rusting
 - b. Cracking
 - c. Pitting
 - d. All of the above
- 11. What can make the difference between resorting to immediate-use sterilization and receiving terminally sterile instrument sets?**
 - a. Count sheets
 - b. Proper handling
 - c. Pre-cleaning
 - d. Bioburden
- 12. Wrapped items are particularly susceptible to damage due to:**
 - a. Layers
 - b. Tearing
 - c. Waning
 - d. Weight
- 13. Before a tech opens any rigid container, they should check to ensure seals are intact and sterilization process indicators have changed ____.**
 - a. Shape
 - b. Form
 - c. Color
 - d. Size
- 14. By flushing endoscopes before leaving the procedure room, this helps keep debris clear of the endoscope ____.**
 - a. Channels
 - b. Tubing
 - c. Covering
 - d. Opening
- 15. Contaminated instruments should be covered with a ____ when transported to the SPD.**
 - a. Lid
 - b. Plastic bag
 - c. Damp towel
 - d. Sheet

Rodeo – Not For the Faint of Heart

- One of the most common injuries endured by rodeo athletes includes:**
 - Groin sprain
 - Eye lacerations
 - Spinal Injuries
 - Toe amputations
- On average, a bull weighs ____.**
 - 7,000 pounds
 - 2,200 pounds
 - 2,000 pounds
 - 5,000 pounds
- The areas the Justin Sportsmedicine Team treats the most are:**
 - Cervical
 - Thoracic
 - Posterior
 - Both a and c
- General treatment for sprains does NOT include:**
 - Rest
 - Weight lifting
 - Compression
 - Ice
- Eye injuries occur from:**
 - Tail whip
 - Hitting the ground
 - Stepping off their horse
 - Calf roping
- The most common thoracic fractures that occur in rodeo include ____.**
 - Transverse process fractures
 - Compression fractures
 - Spinous process
 - Both a and b
- Examples of lower extremity injuries include:**
 - Ulnar fractures
 - Pubalgia
 - Concussions
 - Carpal ligament injuries
- ____ injuries are common as riders land or fall on a flexed, bent knee.**
 - MCL
 - ACL
 - PCL
 - Knee
- Pubalgia is also known as ____.**
 - Hernia
 - Fascia transversalis
 - Pubic tubercle
 - Sportsman's hernia
- ACL injuries are usually graded on a severity scale with Grade 3 equaling:**
 - Mild, slightly stretched ligaments
 - Complete tears
 - Loose, partial tear
 - Stable joint
- A surgeon may perform a ____ test to determine the extent of ACL damage.**
 - Lachman
 - MRI
 - Posterior pull
 - Blood
- ____ are most frequently used to reconstruct an ACL.**
 - Autografts
 - Allografts
 - Xenograft
 - Synthetic ligament
- Approximately ____ of bone is removed to prevent impingement on the ACL graft.**
 - 1-3 mm
 - 3-5 cm
 - 3 -5 mm
 - 3 mm
- Femoral and ____ tunnels are created to ensure proper placement of the graft.**
 - Tibial spine
 - Tibial
 - Lateral
 - Femur
- A/an ____ clamp helps grab sutures and pulls them out of the tibial tunnel.**
 - Mosquito
 - Schmidt
 - Allis
 - Hohmann

Rodeo Not For the Faint of Heart – questions cont.

16. Recovery time varies, but some patients may need to stay off the injured leg post-operatively for:
- 2 weeks
 - 4 weeks
 - 8 weeks
 - 10 weeks
17. Justin Sportsmedicine Team travels across the country and attends as many as __ rodeos per year.
- 125
 - 225
 - 380
 - 400
18. Justin Sportsmedicine Team has funded free medical treatment to rodeo athletes since ____.
- 1978
 - 1990
 - 1981
 - 2001
19. Some services that medical service can provide onsite includes:
- Massage
 - Braces
 - Ice
 - All of the above
20. Finish this sentence: “If you’re gonna rodeo, ____.”
- You’re gonna have some fun
 - You’re gonna win
 - You’re gonna want to run the other way
 - You’re gonna get hurt

Mammoplasty to Treat Macromastia

- Reduction mammoplasty is performed to re-establish a functional and ___ bust to the patient's body.**
 - Shapely
 - Proportional
 - Full
 - Round
- Enlarged breasts can occur due to:**
 - Genetic predisposition
 - Following child birth
 - During menopause
 - All of the above
- The degree of breast ptosis is determined by the degree to which the nipple has fallen below the patient's ___.**
 - Inframammary fold
 - Mammary fold
 - Retromammary lymph
 - Mammary artery
- For a mammoplasty, the patient is placed in the ___ position.**
 - Lateral
 - Reverse
 - Supine
 - Fowler's
- The patient's arms are placed in a (n) ___ position to relax the pectoralis muscles during surgery.**
 - Supine
 - Abducted
 - Superior
 - Adducted
- Which technique features both an arterial and venous blood supply for the nipple – areola complex?**
 - Lateral pedicle
 - Inferior areola
 - Inferior pedicle
 - Anterior approach
- Post-operative care includes removing drainage tubes around day ___ following the surgery.**
 - 4
 - 5
 - 6
 - 7
- The first wedge of fatty and glandular tissue is dissected from the body using ___.**
 - Adson forceps
 - 10 blade
 - Bovie tip
 - Electrosurgical unit
- The breast is reconstructed by rotating the ___ and ___ breast tissues from the upper flap.**
 - Lateral and inferior
 - Lateral and medial
 - Lateral and abducted
 - Medial and superior
- The surgeon continues to evaluate the size, shape and ___ of the breast throughout the operation.**
 - Symmetry
 - Fullness
 - Bleeding
 - Height
- If a woman has breasts that require a large resection of tissue, a ___ technique may be used.**
 - Pedicle
 - Nipple-graft
 - Inframammary fold
 - Contralateral
- ___ can be a sign of subcutaneous bleeding.**
 - Dehydration
 - Headache
 - Numbness
 - Unilateral swelling
- Surgical scars usually will begin to fade and become less noticeable within ___.**
 - 12 days
 - 12 months
 - 16 months
 - 8 months
- The primary lymph drainage system is the ___.**
 - Retromammary lymph plexus
 - Hypodermis
 - Inframammary lymph
 - Internal mammary system
- ___ run in the subcutaneous layer of adipose tissue throughout the breast.**
 - Paxton's ligaments
 - Pectoralis fascia
 - Suspensory ligaments
 - Intercostal nerves

Damage Control Surgery

- There are three phases of damage control surgery. The first one is:**
 - Decreasing contamination
 - Identifying injuries
 - Controlling hemorrhaging
 - Repairing injuries
- A left lateral rotation allows for direct access to the lateral aspect of the ____.**
 - Abdominal wall
 - Aorta
 - Kidneys
 - Bowel
- A FAST exam uses a portable sonography to detect ____ in the peritoneal cavity.**
 - Hemorrhaging
 - Excess fluids
 - Wounds
 - Contamination
- Once the patient is intubated, the surgeon will prep from the suprasternal notch down to the mid thighs and ____.**
 - Proximal
 - Superior
 - Lateral
 - Medial
- Direct pressure can be applied to the inferior vena cava ____ and ____ to any lacerations during injury identification.**
 - Distal, lateral
 - Inferior, superior
 - Distal, proximal
 - Proximal, medial
- The surgeon will attempt rapid entry into the ____.**
 - Peritoneal cavity
 - Right mid thigh
 - Right abdominal cavity
 - Left upper quadrant
- The surgeon will pack the abdominal cavity with ____ following confirmation of blood supply.**
 - Laparotomy sponges
 - Raytec sponges
 - ABD pads
 - Surgical towels
- The retroperitoneum is divided into three zones. Zone II includes:**
 - Kidneys
 - Adrenal glands
 - Small intestines
 - Both a and b
- When inspecting the bowel for injury, ____ can be used to temporarily control bleeding.**
 - Retractors
 - Sutures
 - Babcock clamps
 - Forrester sponge stick
- A retractor is used on the abdominal wall to expose the ____.**
 - Left quadrant
 - Right upper quadrant
 - Abdominal cavity
 - Spleen
- Packs are placed above and below the ____ while the surgeon is compressing it to ensure tamponade.**
 - Spleen
 - Liver
 - Small intestines
 - Abdominal wall
- When identifying injuries, the surgical technologist needs to be prepared by having ____ on passers.**
 - Clamps
 - Sutures
 - Retractors
 - Sponges
- Instrumentation for emergency surgeries include:**
 - Abdominal retractors
 - Suture needles
 - Cautery tips
 - All of the above
- Complications of damage control surgery include:**
 - Hemorrhaging
 - Hypothermia
 - Acidosis
 - All of the above
- In World War II, all colon injuries were treated by ____.**
 - Excision
 - Colostomy
 - Compression
 - Blood transfusion

Organ Procurement

- Procurement is the surgical removal of ___ from either alive or dead donor and transplanted into another patient.**
 - Tissue
 - Organ
 - Both a and b
 - Neither a or b
- Live donors cannot donate which organ?**
 - Kidney
 - Lung
 - Liver
 - Live donors can't donate any organs
- The ___ is responsible for matching recipients with donors all across the United States.**
 - Organ Center
 - Health and Human Services
 - FDA
 - Local hospitals
- In a published study by the American Journal of Transplantation, the mean travel distance of most abdominal organs was ____.**
 - 23 miles
 - 222 miles
 - 223 miles
 - 13 miles
- The sternotomy should be performed from cranial and brought ___ to ensure that the left innominate vein is not injured.**
 - Laterally
 - Medial
 - Distally
 - Inferior
- The surgeon divides the falciform ligament up to the IVC to provide ____.**
 - Space
 - Mobility
 - Less trauma
 - Additional pathways
- The surgical technologist should have a pair of ___ in case of any adhesions that may stick to the inferior and lateral surfaces of the liver, which results in sharp dissection.**
 - Crile hemostat
 - Mayo scissors
 - DeBakey forceps
 - Metzenbaum scissors
- The IMV is most commonly used for access into the ____.**
 - Peritoneum
 - Portal system
 - Chest cavity
 - GU system
- Once tape is placed, the surgeon places a clamp around the ___ in preparation for the cross clamp.**
 - Aorta
 - Liver
 - Diaphragm
 - Kidney
- After the surgeon opens the parietal pleura, the surgical technologist should ____.**
 - Ensure flush lines are free of air
 - Have an ice bucket available with slush
 - Check that poole tips are attached to the suction tubing
 - All of the above
- In warm dissection, exsanguination is performed by opening the ____.**
 - Right atrium
 - Left atrium
 - Aorta
 - Liver
- One of the remaining vascular structures a surgeon will dissect during a cold dissection of the liver is ____.**
 - Abdomen
 - Diaphragm
 - Suprarenal aorta
 - Portal vein
- Organ recovery has increased greatly with patients who receive a major organ transplant now having a ___ survival rate better than 90%.**
 - Three year
 - One year
 - Six months
 - One month
- In cold dissection of the liver, the last item the surgeon incises and divides away from the spine and diaphragmatic muscle to free the liver is ____.**
 - Abdomen
 - SMA
 - Aorta
 - IVC
- In warm dissection, a midline incision is extended from the pubic bone to the ____.**
 - Aorta
 - Liver
 - Xiphoid
 - Round Ligament

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Alternatives to Blood Transfusions

a	b	c	d	a	b	c	d	a	b	c	d				
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

A Crash Course in Microbiology

a	b	c	d	a	b	c	d		
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Mark one box next to each number. Only one correct or best answer will be selected for each question.

Taking Control of Infection Control

a	b	c	d	a	b	c	d	Mark one box next to each number. Only one correct or best answer will be selected for each question.	
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

The Modern-day C-section

a	b	c	d	a	b	c	d	a	b	c	d	Mark one box next to each number. Only one correct or best answer will be selected for each question.	
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

A Facial Rejuvenation

a	b	c	d	a	b	c	d	Mark one box next to each number. Only one correct or best answer will be selected for each question.	
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

Adenocarcinoma of the Appendix

a	b	c	d	a	b	c	d	a	b	c	d	Mark one box next to each number. Only one correct or best answer will be selected for each question.	
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Single-site Laparoscopic Total Hysterectomy

a	b	c	d	a	b	c	d	Mark one box next to each number. Only one correct or best answer will be selected for each question.	
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

Sterile Processing: The Other Side of Surgical Services

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Rodeo – Not for the Faint of Heart

a b c d	a b c d	a b c d	a b c d
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	19. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	20. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	16. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	17. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	18. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Mammoplasty to Treat Macromastia

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Damage Control Surgery

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Organ Procurement

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Sterile Processing: The Other Side of Surgical Services

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Rodeo – Not for the Faint of Heart

a b c d	a b c d	a b c d	a b c d
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	19. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	20. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	16. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	17. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	18. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Mammoplasty to Treat Macromastia

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Damage Control Surgery

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Organ Procurement

a b c d	a b c d	a b c d	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	7. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	13. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	8. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	14. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	9. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	15. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Mark one box next to each number. Only one correct or best answer will be selected for each question.
4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	10. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	11. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	12. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		