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
11. Electrocautery is a safe procedure that is routinely used in surgery to remove ___.
   a. Unwanted tissue
   b. Blood cells
   c. Harmful tissue
   d. Both a and c

12. Oxygent is a (n) ___ designed to augment oxygen delivery in patients.
   a. Technique
   b. Life-saver
   c. Intravascular carrier
   d. 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.
   a. Pain
   b. Anemia
   c. Vision problems
   d. Hot flashes

14. Dr Lorenz developed a reputation for his ability to treat _____.
   a. Clubfeet
   b. Hip dysplasia
   c. Broken legs
   d. None of the above

15. The three most commonly used vasodilators are:
   a. Sodium nitroprusside
   b. Nitroglycerin
   c. Trimethaphan
   d. All of the above
1. How many terms are there in the Linnaean system?
   a. 6       c. 8
   b. 7       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. ICLS 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

1. According to the National Center for Health Statistics, the C-section rate has climbed more than 50% since ___.
   a. 1973  
   b. 1986  
   c. 1996  
   d. 2000

2. For the Caesarean section, the ___ section is the procedure most commonly used.
   a. Lower uterine segment
   b. Upper uterine segment
   c. Bladder
   d. Mid-section

3. Though rarely performed today, the classical Caesarean section involves the ___ which allows a greater space to deliver the baby.
   a. Longitudinal incision
   b. Midline longitudinal incision
   c. Midline lateral incision
   d. None of the above

4. When an obstetrician determines a Caesarean may be necessary, the following may be present:
   a. Failed labor induction
   b. Cord prolapse
   c. Placental previa
   d. All of the above

5. A (n) ____ may result in a denser block, allowing some sensation at the surgical site.
   a. Spinal block
   b. Epidural
   c. Anesthesia
   d. IV drugs

6. After anesthesia is administered, the positional effect on cardiac output is of major importance in avoiding maternal ___ and maintaining fetal well-being.
   a. Clotting
   b. Hypotension
   c. Cramps
   d. Dizziness

7. A laparotomy drape is placed on the ___.
   a. Right leg
   b. Chest
   c. Upper thigh
   d. Abdomen

8. The peritoneal incision should not extend past the ___.
   a. Midline
   b. Belly button
   c. Bladder
   d. All of the above

9. The baby’s head is delivered through the ___ incision.
   a. Uterine
   b. Midline
   c. Lateral
   d. Peritoneal

10. Post-delivery, the ___ is the most important layer to close since it is the support layer for the abdomen.
    a. Peritoneal layer
    b. Fascia layer
    c. Stomach cavity
    d. Uterine layer

11. An average hospital stay for a Caesarean patient is approximately ___.
    a. 24 hours
    b. 1 to 3 days
    c. 2 to 4 days
    d. 5 to 7 days

12. Complications with a Caesarean procedure may include:
    a. Surgical injury
    b. Wound infection
    c. Endometritis
    d. All of the above

13. 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.
    a. Illness
    b. Complications
    c. Death
    d. All of the above

14. A repeat Caesarean section is performed when a patient has had a previous Caesarean section and is typically performed through the ____.
    a. Old scar incision
    b. Open wound
    c. Uterus
    d. Lateral incision

15. C-section rates are on the rise for a variety of reasons including ____.
    a. Rising obesity rate among expectant moms
    b. Increase in multiple births
    c. Average age of mother is higher
    d. All of the above
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

1. The appendix is a small ___ that extends off the cecum of the large intestine.
   a. Muscle  c. Gland
   b. Organ    d. Ligament

2. The function of the appendix is not fully understood, but some believe ____.
   a. It helps balance the intestinal tract
   b. It plays a special function in the immune system
   c. Only b
   d. Both a and b

3. Appendix cancer is rare, affecting as few as ___ Americans each year.
   a. 850  c. 600
   b. 1,020  d. 200

4. The majority of ___ that are classified as carcinoid are found by accident.
   a. Appendiceal Tumors
   b. Non-carcinoid Tumors
   c. Adenocarcinoid Tumors
   d. Malignant Tumors

5. In initial stages of cancer in the appendix, pain usually occurs in the ____.
   a. Upper left quadrant
   b. Lower right quadrant
   c. Stomach
   d. Lower right thigh

6. An appendectomy is usually performed if the carcinoid tumor is less than ___ in size with no metastasis.
   a. 1 cm  c. 2 cm
   b. 11 cm  d. 0.5 cm

7. If the carcinoid has metastasized to the liver, the recommended surgery is ____ with cytoreductive surgery and hepatic resection.
   a. Colectomy
   b. Hemicolecotmy
   c. Right hemicolecotmy
   d. Right colectomy

8. An appendectomy procedure includes usage of the following:
   a. Suction apparatus
   b. Basin set
   c. Electrosurgical pencil
   d. All of the above

9. This incision is usually used to begin the removal of the appendix:
   a. Crile
   b. McBurney’s
   c. Longitudinal
   d. Cherney

10. Depending on the surgeon’s preference, the crushed base of the appendix is amputated with (a) ____.
    a. Scissors
    b. Scalpel
    c. Electrosurgical pencil
    d. Any of the above

11. The removal of the appendix may also be performed via (a) ____.
    a. Laparoscopic approach
    b. Laparotomy
    c. Fistulotomy
    d. Open Cholecystectomy

12. If cancer has not spread past the original site and has not invaded the organ, it is considered to be ___.
    a. Carcinomic
    b. Carcinoma in situ
    c. Malignant
    d. Benign

13. Malignant tumors in the ___ that occur outside of the lymphatic tissue are considered extranodal lymphomas.
    a. Stomach
    b. Brain
    c. Both a and b
    d. Neither a nor b

14. During an appendectomy, the surgical technologist should gently push the stump into the ___ with the Crile hemostat.
    a. Stomach
    b. Lumen
    c. Intestine
    d. Heart

15. In which procedure is the ascending colon removed along with the appendix?
    a. Right hemicolecotmy
    b. Right colectomy
    c. Colectomy
    d. All of the above
1. Advantages of LESS include 
   a. Shorten hospital stay
   b. Faster recovery time
   c. Reduced bleeding
   d. All of the above
2. The patient needs to be placed in the __ position for a single-site laparoscopic hysterectomy.
   a. Supine
   b. Lithotomy
   c. Reverse Trendelenburg
   d. Kraske
3. A/an ____ is used to perform ligation of the round ligaments.
   a. Electrosurgical pencil
   b. Scissors
   c. Ultrasonic scalpel
   d. Curved Forceps
4. Trocars remain in place as the surgeon checks for ____.
   a. Hemostasis
   b. Instruments
   c. Blood pressure
   d. Hemolysis
5. Complications from this procedure can include ____.
   a. Bowel injury
   b. Loss of appetite
   c. Nausea
   d. Loss of vision
6. With some of the studies that have been conducted, one of the biggest benefits for patients undergoing LESS procedures is ____.
   a. Less operation time
   b. Questionable aesthetics
   c. Less prep time
   d. Less postoperative pain
7. Following the procedure, the patient is monitored for ____.
   a. Fluid maintenance
   b. Pain
   c. Voiding
   d. All of the above
8. If spontaneous voiding does not occur following the operation, the ____ may be drained.
   a. Wound site
   b. Bladder
   c. Bowels
   d. Stomach
9. During the procedure, a ____ incision is performed to open the peritoneal cavity.
   a. Lateral
   b. Distal
   c. Longitudinal
   d. Inferior
10. The pneumoperitoneum is released after the pelvis is ____ and suctioned.
    a. Palpated
    b. Irrigated
    c. Sutured
    d. Cauterized
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 instruments 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
1. One of the most common injuries endured by rodeo athletes includes:
   a. Groin sprain
   b. Eye lacerations
   c. Spinal Injuries
   d. Toe amputations

2. On average, a bull weighs ___.
   a. 7,000 pounds
   b. 2,200 pounds
   c. 2,000 pounds
   d. 5,000 pounds

3. The areas the Justin Sportsmedicine Team treats the most are:
   a. Cervical
   b. Thoracic
   c. Posterior
   d. Both a and c

4. General treatment for sprains does NOT include:
   a. Rest
   b. Weight lifting
   c. Compression
   d. Ice

5. Eye injuries occur from:
   a. Tail whip
   b. Hitting the ground
   c. Stepping off their horse
   d. Calf roping

6. The most common thoracic fractures that occur in rodeo include ___.
   a. Transverse process fractures
   b. Compression fractures
   c. Spinous process
   d. Both a and b

7. Examples of lower extremity injuries include:
   a. Ulnar fractures
   b. Pubalgia
   c. Concussions
   d. Carpal ligament injuries

8. ___ injuries are common as riders land or fall on a flexed, bent knee.
   a. MCL
   b. ACL
   c. PCL
   d. Knee

9. Pubalgia is also known as ___.

10. ACL injuries are usually graded on a severity scale with Grade 3 equaling:
    a. Mild, slightly stretched ligaments
    b. Complete tears
    c. Loose, partial tear
    d. Stable joint

11. A surgeon may perform a ___ test to determine the extent of ACL damage.
    a. Lachman
    b. MRI
    c. Posterior pull
    d. Blood

12. ___ are most frequently used to reconstruct an ACL.
    a. Autografts
    b. Allografts
    c. Xenograft
    d. Synthetic ligament

13. Approximately ___ of bone is removed to prevent impingement on the ACL graft.
    a. 1-3 mm
    b. 3-5 cm
    c. 3-5 mm
    d. 3 mm

14. Femoral and ___ tunnels are created to ensure proper placement of the graft.
    a. Tibial spine
    b. Tibial
    c. Lateral
    d. Femur

15. A/an ___ clamp helps grab sutures and pulls them out of the tibial tunnel.
    a. Mosquito
    b. Schnidt
    c. Allis
    d. Hohmann

   a. Hernia
   b. Fascia transversalis
   c. Pubic tubercle
   d. Sportsman’s hernia
16. Recovery time varies, but some patients may need to stay off the injured leg post-operatively for:
   a. 2 weeks
   b. 4 weeks
   c. 8 weeks
   d. 10 weeks

17. Justin Sportsmedicine Team travels across the country and attends as many as ___ rodeos per year.
   a. 125
   b. 225
   c. 380
   d. 400

18. Justin Sportsmedicine Team has funded free medical treatment to rodeo athletes since ___.
   a. 1978
   b. 1990
   c. 1981
   d. 2001

19. Some services that medical service can provide onsite includes:
   a. Massage
   b. Braces
   c. Ice
   d. All of the above

20. Finish this sentence: “If you’re gonna rodeo, ____.”
   a. You’re gonna have some fun
   b. You’re gonna win
   c. You’re gonna want to run the other way
   d. You’re gonna get hurt
1. Reduction mammoplasty is performed to re-establish a functional and ___ bust to the patient’s body.
   a. Shapely c. Full
   b. Proportional d. Round

2. Enlarged breasts can occur due to:
   a. Genetic predisposition
   b. Following child birth
   c. During menopause
   d. All of the above

3. The degree of breast ptosis is determined by the degree to which the nipple has fallen below the patient’s ___.
   a. Inframammary fold
   b. Mammary fold
   c. Retromammary lymph
   d. Mammary artery

4. For a mammoplasty, the patient is placed in the ___ position.
   a. Lateral c. Supine
   b. Reverse d. Fowler’s

5. The patient’s arms are placed in a (n) ___ position to relax the pectoralis muscles during surgery.
   a. Supine c. Superior
   b. Abducted d. Adducted

6. Which technique features both an arterial and venous blood supply for the nipple – areola complex?
   a. Lateral pedicle
   b. Inferior areola
   c. Inferior pedicle
   d. Anterior approach

7. Post-operative care includes removing drainage tubes around day ___ following the surgery.
   a. 4 c. 6
   b. 5 d. 7

8. The first wedge of fatty and glandular tissue is dissected from the body using ___.
   a. Adson forceps c. Bovie tip
   b. 10 blade d. Electrosurgical unit

9. The breast is reconstructed by rotating the ___ and ___ breast tissues from the upper flap.
   a. Lateral and inferior
   b. Lateral and medial
   c. Lateral and abducted
   d. Medial and superior

10. The surgeon continues to evaluate the size, shape and ___ of the breast throughout the operation.
    a. Symmetry c. Bleeding
    b. Fullness d. Height

11. If a woman has breasts that require a large resection of tissue, a ___ technique may be used.
    a. Pedicle
    b. Nipple-graft
    c. Inframammary fold
    d. Contralateral

12. ___ can be a sign of subcutaneous bleeding.
    a. Dehydration
    b. Headache
    c. Numbness
    d. Unilateral swelling

13. Surgical scars usually will begin to fade and become less noticeable within ___.
    a. 12 days
    b. 12 months
    c. 16 months
    d. 8 months

14. The primary lymph drainage system is the ___.
    a. Retromammary lymph plexus
    b. Hypodermis
    c. Inframammary lymph
    d. Internal mammary system

15. ___ run in the subcutaneous layer of adipose tissue throughout the breast.
    a. Paxton’s ligaments
    b. Pectoralis fascia
    c. Suspensory ligaments
    d. Intercostal nerves
Damage Control Surgery

1. There are three phases of damage control surgery. The first one is:
   a. Decreasing contamination
   b. Identifying injuries
   c. Controlling hemorrhaging
   d. Repairing injuries

2. A left lateral rotation allows for direct access to the lateral aspect of the ___.
   a. Abdominal wall
   b. Aorta
   c. Kidneys
   d. Bowel

3. A FAST exam uses a portable sonography to detect ___ in the peritoneal cavity.
   a. Hemorrhaging
   b. Excess fluids
   c. Wounds
   d. Contamination

4. Once the patient is intubated, the surgeon will prep from the suprasternal notch down to the midthighs and _____.
   a. Proximal
   b. Superior
   c. Lateral
   d. Medial

5. Direct pressure can be applied to the inferior vena cava ___ and ___ to any lacerations during injury identification.
   a. Distal, lateral
   b. Inferior, superior
   c. Distal, proximal
   d. Proximal, medial

6. The surgeon will attempt rapid entry into the ___.
   a. Peritoneal cavity
   b. Right midthigh
   c. Right abdominal cavity
   d. Left upper quadrant

7. The surgeon will pack the abdominal cavity with ___ following confirmation of blood supply.
   a. Laparotomy sponges
   b. Raytec sponges
   c. ABD pads
   d. Surgical towels

8. The retroperitoneum is divided into three zones. Zone II includes:
   a. Kidneys
   b. Adrenal glands
   c. Small intestines
   d. Both a and b

9. When inspecting the bowel for injury, ___ can be used to temporarily control bleeding.
   a. Retractors
   b. Sutures
   c. Babcock clamps
   d. Forrester sponge stick

10. A retractor is used on the abdominal wall to expose the _____.
    a. Left quadrant
    b. Right upper quadrant
    c. Abdominal cavity
    d. Spleen

11. Packs are placed above and below the ___ while the surgeon is compressing it to ensure tamponade.
    a. Spleen
    b. Liver
    c. Small intestines
    d. Abdominal wall

12. When identifying injuries, the surgical technologist needs to be prepared by having ___ on passers.
    a. Clamps
    b. Sutures
    c. Retractors
    d. Sponges

13. Instrumentation for emergency surgeries include:
    a. Abdominal retractors
    b. Suture needles
    c. Cautery tips
    d. All of the above

14. Complications of damage control surgery include:
    a. Hemorrhaging
    b. Hypothermia
    c. Acidosis
    d. All of the above

15. In World War II, all colon injuries were treated by ___.
    a. Excision
    b. Colostomy
    c. Compression
    d. Blood transfusion
Organ Procurement

1. Procurement is the surgical removal of ___ from either alive or dead donor and transplanted into another patient.
   a. Tissue  c. Both a and b
   b. Organ  d. Neither a or b

2. Live donors cannot donate which organ?
   a. Kidney  
   b. Lung  
   c. Liver  
   d. Live donors can’t donate any organs

3. The ___ is responsible for matching recipients with donors all across the United States.
   a. Organ Center  
   b. Health and Human Services  
   c. FDA  
   d. Local hospitals

4. In a published study by the American Journal of Transplantation, the mean travel distance of most abdominal organs was ___.
   a. 23 miles  c. 223 miles
   b. 222 miles  d. 13 miles

5. The sternotomy should be performed from cranial and brought ___ to ensure that the left innominate vein is not injured.
   a. Laterally  c. Distally
   b. Medial  d. Inferior

6. The surgeon divides the falciform ligament up to the IVC to provide ___.
   a. Space  
   b. Mobility  
   c. Less trauma  
   d. Additional pathways

7. 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.
   a. Crile hemostat  c. DeBakey forceps
   b. Mayo scissors  d. Metzenbaum scissors

8. The IMV is most commonly used for access into the ___.
   a. Peritoneum  
   b. Portal system  
   c. Chest cavity  
   d. GU system

9. Once tape is placed, the surgeon places a clamp around the ___ in preparation for the cross clamp.
   a. Aorta  c. Diaphragm
   b. Liver  d. Kidney

10. After the surgeon opens the parietal pleura, the surgical technologist should ___.
    a. Ensure flush lines are free of air
    b. Have an ice bucket available with slush
    c. Check that poole tips are attached to the suction tubing
    d. All of the above

11. In warm dissection, exsanguination is performed by opening the ___.
    a. Right atrium  
    b. Left atrium  
    c. Aorta  
    d. Liver

12. One of the remaining vascular structures a surgeon will dissect during a cold dissection of the liver is ___.
    a. Abdomen  
    b. Diaphragm  
    c. Suprarenal aorta  
    d. Portal vein

13. Organ recovery has increased greatly with patients who receive a major organ transplant now having a ___ survival rate better than 90%.
    a. Three year  
    b. One year  
    c. Six months  
    d. One month

14. 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 ___.
    a. Abdomen  
    b. SMA  
    c. Aorta  
    d. IVC

15. In warm dissection, a midline incision is extended from the pubic bone to the ___.
    a. Aorta  
    b. Liver  
    c. Xiphoid  
    d. Round Ligament
Answers CE CREDIT PKG 15A: 16.5 CONTINUING EDUCATION CREDITS

AST Member No:_________________

Name:_________________________________ Certification No:__________________

Address:_____________________________ City:____________ State: ___

Zip:_______ Telephone:_________________________ Email:________________________

CE Credit PKG 15A: 16.5 CONTINUING EDUCATION CREDITS

The fee is $27. This package is only available to AST members.

☐ Check Enclosed Yes, I want to pay by Credit Card: ☐ Visa ☐ MasterCard ☐ AmEx

Card# ___________________________ Expiration Date_________ Signature____________

Alternatives to Blood Transfusions

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>13.</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>14.</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>15.</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>11.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>12.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

A Crash Course in Microbiology

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mark one box next to each number. Only one correct or best answer will be selected for each question.
### Taking Control of Infection Control

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### The Modern-day C-section

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>13.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>14.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>15.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### A Facial Rejuvenation

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### Adenocarcinoma of the Appendix

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>13.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>14.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>15.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### Single-site Laparoscopic Total Hysterectomy

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>7.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>8.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>9.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>10.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mark one box next to each number. Only one correct or best answer will be selected for each question.
## Sterile Processing: The Other Side of Surgical Services

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

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Rodeo – Not for the Faint of Heart

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

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Mammoplasty to Treat Macromastia

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

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Damage Control Surgery

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

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Organ Procurement

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

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Sterile Processing: The Other Side of Surgical Services

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

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Rodeo – Not for the Faint of Heart

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

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Mammoplasty to Treat Macromastia

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

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Damage Control Surgery

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

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Organ Procurement

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

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>