1. In a rear-impact motor vehicle crash, which area of the spine is most susceptible to injury?
   A. Cervical
   B. Thoracic
   C. Lumbar
   D. Sacral-coccygeal

2. A 36-year-old male sustains blunt force thoracic trauma and fits the criteria for a load-and-go patient. Which of the following should be performed on the scene?
   A. Obtain an EKG
   B. Establish vascular access
   C. Obtain a finger-stick serum lactate level
   D. Assess for other potentially life-threatening conditions

3. The use of external laryngeal manipulation:
   A. Decreases the risk of airway trauma
   B. Reduces gastric distention
   C. Improves glottic visualization
   D. Causes aspiration

4. A pericardiocentesis is performed to:
   A. To remove fluid from the lining around the lungs
   B. To remove fluid from the lining around the heart
   C. To inject medications directly into the heart
   D. To monitor stroke volume

5. A 56-year-old male sustains a gunshot wound to the abdomen. Vital signs are BP 74/32, P 136 present only at the carotid, and R 24 and shallow. The target of fluid resuscitation is:
   A. Return of peripheral pulses
   B. Maintenance of central pulses
   C. Systolic blood pressure of 110-120
   D. Pulse rate of 100

6. An unconscious 15-year-old male was struck on the head with a baseball bat. His arms and legs are extended and his right pupil is dilated and fixed. You should:
   A. Insert an oropharyngeal airway, administer oxygen, and restrict fluids
   B. Apply a non-rebreather mask, restrict fluids, and administer Mannitol
   C. Perform nasotracheal intubation, restrict fluids, and provide adequate ventilation
   D. Perform bag-mask ventilation at 20 per minute
7. Which of the following mechanisms of injury does not commonly cause damage to the spinal cord?
   A. Hyperextension
   B. Hyperflexion
   C. Lateral stress
   D. Compression

8. A 4-year-old female is unconscious after falling off a bicycle. Which of the following is the best method to open the airway?
   A. Modified jaw-thrust
   B. Head tilt
   C. Neck flexion
   D. Neck lift

9. When performing the ITLS Primary Survey, the team leader may minimize errors by:
   A. Performing all interventions
   B. Limiting crew roles
   C. Permitting crew to continue the assessment
   D. Delegating interventions

10. You have placed an NPA in your patient and now observe mild hemorrhage from the nares. You should:
    A. Immediately remove the NPA and pack the nose with gauze
    B. Immediately remove the NPA and reinsert on the opposite nare
    C. Leave the NPA in place so as not to disturb the clot or reactivate bleeding
    D. Contact medical control as NPAs will not cause hemorrhage

11. A 27-year-old male with blunt chest trauma from a motor vehicle collision was successfully intubated at the scene. While ventilating the patient, you note resistance with absence of right chest wall movement. You should suspect a:
    A. Flail chest
    B. Gastric distention
    C. Mucus obstruction
    D. Tension pneumothorax
12. A 34-year-old man has a gunshot wound to the right groin area. Arterial bleeding, which cannot be controlled with direct pressure or tourniquet, is coming from the wound. The patient appears confused, diaphoretic, and has weak peripheral pulses. What is the appropriate fluid resuscitation regimen for this patient?
   A. Intravenous fluid at a "keep open" rate  
   B. Intravenous fluid; give enough fluid to maintain peripheral pulses  
   C. Intravenous fluid at a “wide open” rate  
   D. Intravenous access should be established in this situation

13. The gold standard to confirm that the endotracheal tube is placed in the trachea is:
   A. Evaluation of breath sounds  
   B. Equal chest rise and fall  
   C. Waveform capnography  
   D. Presence of condensation in the tube

14. Common mechanisms of injury for the pediatric patient include all of the following except:
   A. Falls  
   B. Animal bites  
   C. Burns  
   D. Motor vehicle collisions

15. Which of the following injuries would change a trauma patient's transport classification from "stable" to "load and go"?
   A. Clavicle fracture  
   B. Pelvic fracture  
   C. Bilateral humerus fractures  
   D. Bilateral tibia fractures

16. Which of the following findings would not make a patient difficult to ventilate with a bag-valve mask?
   A. Beard  
   B. Obesity  
   C. Elderly patient  
   D. Multiple nose piercings

17. What is the most frequent cause for an intubated trauma patient to develop poor lung compliance while being ventilated?
   A. Tracheal extubation  
   B. Pericardial tamponade  
   C. Gastric distention  
   D. Tension pneumothorax
18. Hemostatic agents applied directly to the source of bleeding must be used in conjunction with:
   A. Direct pressure to the wound
   B. Tourniquets proximal to the wound
   C. Pressure points to arteries proximal to the wound
   D. Elevation of the wound above the level of the heart

19. Routine use of hyperventilation in the traumatic brain injured (TBI) patient will:
   A. Cause vasoconstriction and increased cerebral ischemia
   B. Cause vasodilation and decreased intracranial pressure (ICP)
   C. Cause an increase of end-tidal CO₂
   D. Cause peripheral hypoxia and cyanosis

20. Which finding requires interruption of the ITLS Primary Survey?
   A. Complete airway obstruction
   B. Gasping respirations
   C. Impaled object in abdomen
   D. Very weak pulse

21. Bag-valve-mask ventilation:
   A. Rarely causes gastric distention due to low airway pressures
   B. Is more effective in patients whose dentures have been removed
   C. Is easily accomplished by one rescuer at the head
   D. May exceed 60 cm H₂O pressure in the airway

22. Which of the following is true regarding pulmonary contusion?
   A. It is uncommon in chest trauma
   B. It is caused by hemorrhage into the lung parenchyma
   C. It is only caused by blunt force trauma
   D. It rapidly develops after injury

23. A 25-year-old female was stabbed in the left arm. She presents with an altered mental status and signs of shock. Bleeding is controlled by direct pressure and use of a tourniquet. Which intravenous fluid therapy is appropriate?
   A. Estimate blood loss and administer fluid at a 3:1 ratio
   B. Fluid administration of 250 ml
   C. Fluid administration to maintain systolic pressure of 60 mmHg
   D. Intravenous fluid administration bolus of 500-1000 mL, then reassess
24. In the absence of herniation syndrome, adult patients with suspected traumatic brain injury should be ventilated as a rate of:
   A. 8-10 per minute
   B. 12-14 per minute
   C. 16-18 per minute
   D. 20-22 per minute

25. What is the most likely cause of unequal pupils in a patient whose mental status is altered due to a head injury?
   A. Increased intracranial pressure
   B. Pre-existing condition
   C. Alcohol intoxication
   D. Hypotension

26. A 57-year-old male has a respiratory rate of 36, ETCO₂ of 30 mmHg, and an oxygen saturation of 80%. You should:
   A. Coach the patient to slow his breathing as his ETCO₂ level indicates hyperventilation
   B. Ventilate with a BVM at a higher rate to increase the patient’s oxygen levels
   C. Ventilate with a BVM at a rate of 6 to increase the patient’s ETCO₂ level
   D. Provide supplemental oxygen

27. A 31-year-old male presents with difficulty breathing, rapid and weak pulse, flat neck veins, and midline trachea. Your assessment of the left side of the chest reveals decreased breath sounds and dullness to percussion. You should suspect:
   A. Cardiac tamponade
   B. Flail chest
   C. Tension pneumothorax
   D. Massive hemothorax

28. A 45-year-old female is found unconscious at the scene of a motor vehicle collision. Her vital signs are BP 80/40, P 130, and R 30. Which of the following is the most likely cause for her vital signs?
   A. Fractured lower legs
   B. Intracranial hemorrhage
   C. Bleeding into the chest or abdomen
   D. Spinal cord injury with neurogenic shock
29. **The cause of a secondary brain injury is:**
   A. Contra-coup
   B. Coup
   C. Hemorrhage
   D. Hypoxia

30. **Which one of the following is a reason to interrupt the initial assessment?**
   A. Cardiac arrest
   B. Multiple open (compound) fractures
   C. Severe head injury with brain tissue visible
   D. Severe shock

31. **Which of the following is not a desired characteristic of a suction device?**
   A. It can be carried in an airway kit with an oxygen cylinder and other airway equipment
   B. It can be hand powered or battery powered
   C. It can generate sufficient suction and volume displacement to remove pieces of food, blood clots, and thick secretions from the oropharynx
   D. It can be powered by your portable O₂ cylinder so it is not dependent on battery power

32. **What is the most serious early complication of burns from electrical contact?**
   A. Cervical spine injury
   B. Cardiac dysrhythmia
   C. Hypovolemic shock
   D. Renal failure

33. **Which of the following changes is most useful to monitor in the child with head injury?**
   A. Frequency of vomiting
   B. Level of consciousness
   C. Reflexes
   D. Sensory exam

34. **A disoriented 23-year-old male is injured in a motorcycle collision. The patient appears to be intoxicated and does not want medical attention despite a large laceration on his scalp, which is actively bleeding. You should:**
   A. Have the patient call a friend or family member and have them drive him home and sleep it off
   B. Discuss the impact of alcohol abuse with him
   C. Treat him as a head injured patient
   D. Wait until the patient loses consciousness and then transport
35. When performing a needle decompression, which of the following is the correct anatomical location?
   A. Directly over the top of the fourth rib in the midaxillary line
   B. Directly over the top of the fifth rib in the midclavicular line
   C. Directly under the bottom the third rib in the midclavicular line
   D. Directly over the top of the second rib in the midaxillary line

36. Which of the following is true regarding trauma in the elderly?
   A. Elderly patients are less likely to bleed internally than younger patients
   B. Elderly patients have better outcomes following burns than younger patients
   C. Fatal outcomes are more likely in the elderly than in the young
   D. Motor vehicle collisions are an uncommon mechanism of injury

37. Which of the following organs will suffer the least structural damage from a gunshot wound from a rifle?
   A. Spleen
   B. Kidney
   C. Liver
   D. Lung

38. Which of the following should always be performed prior to transport?
   A. Splint all fractures
   B. Control major external bleeding
   C. Perform the ITLS Secondary Survey
   D. Assess vital signs

39. Which of the following distinguishes a tension pneumothorax from a simple pneumothorax?
   A. Tachycardia
   B. Shock
   C. Dyspnea
   D. Anxiety

40. A 25-year-old female was stabbed in the left arm. She presents with an altered mental status and signs of shock. Bleeding is uncontrolled despite direct pressure. You should:
   A. Apply a tourniquet directly over the wound
   B. Elevate the extremity above the level of the heart
   C. Apply a pressure point
   D. Apply a tourniquet proximal to the injury
41. An unresponsive 36-year-old female was involved in a motorcycle crash. Vital signs are BP 170/100, P 50, R 8 and GCS 3. You should suspect:
   A. Hypovolemia
   B. Increased intracranial pressure
   C. Pain and anxiety
   D. Spinal cord injury

42. A 42-year-old male is involved in a motorcycle accident. Which of the following assessment findings should be managed first?
   A. Airway obstruction
   B. Hypotension
   C. External arterial bleeding
   D. Open lower leg fracture

43. A 32-year-old male is involved in a motor vehicle crash. The steering wheel is bent. Your assessment reveals present and equal bilateral breath sounds, a rapid and weak radial pulse that disappears upon inspiration. You should suspect:
   A. Cardiac contusion
   B. Cardiac tamponade
   C. Flail chest
   D. Tension pneumothorax

44. If hemorrhage is unable to be controlled with a tourniquet, a second tourniquet should be applied:
   A. Distal to the injury site
   B. Just below the first tourniquet
   C. Directly over the first tourniquet
   D. Directly over the wound

45. A 35-year-old male is alert and oriented at the scene of a motor vehicle collision complaining of knee pain and a headache. Your assessment reveals a contusion above the left eye, swelling to the left knee and unequal pupils (left is dilated). Vital signs are: BP 116/72, P 88 and R 16. You should suspect:
   A. Alcohol intoxication
   B. Cerebral herniation
   C. Decreased intracranial pressure
   D. Ocular trauma
46. You have a patient with an isolated stab wound to the lateral chest. According to recent studies, which of the following procedures should be avoided?
   A. Bag-valve-mask ventilations
   B. Supplemental oxygen administration
   C. Application of an occlusive dressing
   D. Spinal motion restriction

47. What is the most common cause of cardiopulmonary arrest in the trauma patient?
   A. Brain injury
   B. Hypoxemia
   C. Myocardial contusion
   D. Ventricular arrhythmia

48. A 34-year-old female was struck by a vehicle causing blunt force chest trauma. She is unconscious with gasping respirations, almost no air movement, a rapid, thready carotid pulse and flat neck veins. You should:
   A. Perform a head-tilt
   B. Perform chest thrusts
   C. Continue the ITLS Primary Survey
   D. Provide positive pressure ventilation

49. A 34-year-old male is injured in a motor vehicle collision. He complains of diffuse abdominal tenderness. Vital signs are BP 100/60, P 120 and R 28 and shallow. You should:
   A. Administer intravenous fluids at a “keep open” rate
   B. Obtain his blood sugar
   C. Complete spinal motion restriction, start ventilations as needed, and transport immediately
   D. Administer intravenous fluids at 20 ml/kg bolus and reassess

50. An unresponsive 52-year-old male was struck in the head by the bucket of a crane. Vital signs are BP 134/80, P 88 and R 8 and shallow. The patient should be ventilated at a rate of:
   A. 8-10 per minute
   B. 12-14 per minute
   C. 18-20 per minute
   D. 20-24 per minute