1. In which of the following vessels does the vital exchange take place and also has the thinnest walls through which oxygen, nutrients, and wastes can pass?
   a. Capillaries
   b. Microvenules
   c. Arterioles
   d. Veins

2. Which of the following types of vessels have valves to maintain one-way blood flow?
   a. Arteries
   b. Capillaries
   c. Veins
   d. Arterioles

3. Which of the following vessels contain blood under the highest amount of pressure?
   a. Veins
   b. Arteries
   c. Venules
   d. Capillaries

4. Which of the following BEST describes the delivery of oxygen and nutrients at the body's cellular level?
   a. Hydrostatic pressure
   b. Perfusion
   c. Osmosis
   d. Circulation

5. Which of the following is another way of describing the condition of shock?
   a. Internal bleeding
   b. Hypotension
   c. Hypoperfusion
   d. Hemorrhage

6. Which of the following is a characteristic of arterial bleeding?
   a. Steady flow
   b. Dark red color
   c. Spurting under pressure
   d. Both B and C

7. In the average adult, the sudden loss of __________ cc of blood is considered serious.
   a. 150
   b. 500
   c. 1,000
   d. 750

8. Which of the following is a characteristic of venous bleeding?
   a. It commonly requires the use of pressure point compression.
   b. It can be profuse, but is generally easily controlled.
   c. It cannot lead to life-threatening amounts of blood loss.
   d. It often requires the use of a tourniquet.

9. Which of the following may occur when there is bleeding from a large vein?
   a. Transmission of bloodborne illnesses
   b. Air embolism
   c. Hypoperfusion
   d. All of the above
10. **Which of the following is NOT recommended when controlling epistaxis?**
   a. Pinching the nostrils together
   b. Keeping the patient calm and quiet
   c. Having the patient tilt the head backward to elevate the nose
   d. Placing the unconscious patient in the recovery position

11. **Which of the following is responsible for most of the signs and symptoms of early shock?**
   a. External bleeding
   b. Internal bleeding
   c. Dilation of the peripheral blood vessels
   d. The body's attempts at compensation for blood loss

12. **When deciding where to transport a patient who is in hypovolemic shock or who has the potential for developing hypovolemic shock, which of the following is the most important service to be provided by the receiving hospital?**
   a. Critical-care nursing
   b. Immediate surgical capabilities
   c. Availability of a chaplain
   d. Rehabilitation services

13. **Which of the following circumstances may result in hypoperfusion?**
   a. There is external bleeding.
   b. Blood vessels are dilated.
   c. The heart is damaged.
   d. All of the above

14. **Which of the following is part of the body's compensatory response to blood loss?**
   a. Blood vessels constrict and the heart rate increases.
   b. Blood vessels dilate and the heart rate increases.
   c. Blood vessels dilate and the heart rate decreases.
   d. Blood vessels constrict and the heart rate decreases.

15. **Which of the following signifies a failure in the patient's compensatory response to blood loss?**
   a. Hypotension
   b. Tachycardia
   c. Tachypnea
   d. Pale, cool skin

16. **Which of the following is the most sensitive indicator of hypoperfusion?**
   a. Delayed capillary refill
   b. Dilation of the pupils
   c. Increased heart rate
   d. Altered mental status

17. **Which of the following BEST explains the reason for minimizing scene-time for the trauma patient with significant hemorrhage or the potential for significant hemorrhage?**
   a. There is nothing the EMT can do for a patient in shock.
   b. It gives the EMT less opportunity to make mistakes in the patient's care.
   c. Studies have indicated that trauma patients who receive surgery within 1 hour of injury have better chances of survival.
   d. All of the above
18. **Which of the following is a major function of the skin?**
   a. Excretion of wastes
   b. Protection from the environment
   c. Temperature regulation
   d. All of the above

19. **Which of the following layers of the skin is the most important in insulating the body against heat loss?**
   a. Parietal layer
   b. Subcutaneous layer
   c. Epidermis
   d. Subdural layer

20. **An injury in which the epidermis remains intact, but blood vessels and cells in the dermis are injured, is called a(n):**
   a. contusion.
   b. abrasion.
   c. concussion.
   d. avulsion.

21. **An injury caused by heavy pressure to the tissues, such as when an extremity is trapped under a fallen tree, that results in damage to muscle cells and the accumulation of waste products in the tissue is called a(n):**
   a. crush injury.
   b. evisceration.
   c. contusion.
   d. abrasion.

22. **Which of the following BEST describes an avulsion?**
   a. An injury caused by a sharp, pointed object
   b. A flap of skin that is partially or completely torn away from the underlying tissue
   c. The epidermis that is scraped away by a rough surface
   d. An accumulation of blood beneath the skin, resulting in swelling

23. **Which of the following injuries requires the use of an occlusive dressing?**
   a. An open wound to the neck
   b. An open wound to the abdomen from which a loop of intestine is protruding
   c. An open wound to the chest
   d. All of the above

24. **A burn extending into the subcutaneous fat would be classified as which type of burn?**
   a. Deep partial thickness
   b. Full thickness
   c. Superficial partial thickness
   d. Superficial

25. **Which of the following patients has the greatest likelihood of being cared for in a burn center?**
   a. A 45-year-old man who has a full thickness burn about 3 inches long by 1/2 inch wide on his posterior arm from backing into a barbecue grill
   b. A 30-year-old woman who has deep partial thickness burns on her hand and arm as a result of spilling hot cooking oil on herself
   c. A 12-year-old male with a superficial partial thickness burn involving his forearm as a result of making a torch by lighting aerosol from a can of hairspray
   d. A 16-year-old female who came into contact with a motorcycle exhaust pipe and has a full thickness burn on her leg about 2 inches in diameter
26. For which of the following patients should the EMT carefully continue to monitor the patient's ventilatory status throughout treatment and transport due to the greatest risk of respiratory failure?
   a. A 17-year-old male with a blistering sunburn on his face
   b. A 34-year-old male who opened the radiator of his car and had hot fluid spray on his chest, resulting in redness and pain in an area about the size of the patient's hand
   c. A 28-year-old male who spilled a strong industrial acid on his legs
   d. A 16-year-old male whose shirt caught on fire, resulting in circumferential burns of his chest

27. Which of the following is of concern with a puncture wound?
   a. An object that remains impaled in the body
   b. Hidden internal bleeding with minimal external bleeding
   c. A strong possibility of contamination
   d. All of the above

28. Your patient is a 40-year-old man who was burned when he spilled gasoline on his pants as he was standing near the pilot light of his hot water heater. He has partial thickness burns from his feet to just above his knees, and circumferentially around both legs. Using the rule of nines, which of the following most accurately represents the extent of body surface area burned?
   a. 18 percent
   b. 9 percent
   c. 36 percent
   d. 4.5 percent

29. While assessing a patient with partial thickness burns to his chest and neck, what should be your highest priority (even if there are no symptoms presently)?
   a. None of the choices
   b. Airway
   c. Hypothermia
   d. Bleeding

30. According to the Rule of Nines for infants and young children, the patient's head and neck account for what percentage of the total body surface area?
   a. 13.5 percent
   b. 14 percent
   c. 9 percent
   d. 18 percent

31. You are dispatched to a 42-year-old male who was shot in the abdomen and thrown from a vehicle. The patient is critical and a high-category trauma; however, due to the mechanism of illness, it is necessary to backboard the patient prior to transport. What is an important assessment before securing the patient?
   a. Verifying trauma center ER bed availability
   b. Examining the patient for entrance and exit wounds
   c. Searching for presence of diaphoresis, tachycardia, and hypotension
   d. Performing a distal neurological assessment

32. Which of the following is a vascular organ in the abdomen that can produce blood loss quickly enough to result in life-threatening hemorrhage following high mechanism of injury blunt trauma?
   a. Intestines
   b. Liver
   c. Pancreas
   d. Kidneys
33. You're an off-duty EMT who encounters a patient sitting behind the wheel of a vehicle that ran off the road along an isolated county road. It appears the patient was unrestrained, or not wearing a seat belt, and struck the steering wheel with his chest. On assessment, you notice a paradoxical motion to the patient's chest on inspiration and expiration. When you radio for dispatch of an ambulance, which of the following pieces of information would you be sure to include?
   a. The patient may have an abdominal evisceration.
   b. The patient is showing signs of abdominal bleeding.
   c. The patient is showing signs of an open chest injury.
   d. The patient may have a flail chest.

34. Which of the following BEST describes an evisceration?
   a. An open wound of the abdomen from which organs protrude
   b. A flap of skin that is partially or completely torn away from the underlying tissue
   c. An accumulation of blood beneath the skin, resulting in swelling
   d. The epidermis that is scraped away by a rough surface

35. Which of the following injuries does NOT produce distended neck veins?
   a. Traumatic asphyxia
   b. Tension pneumothorax
   c. Cardiac tamponade
   d. All of the answer choices may cause distended neck veins.

36. For which of the following wounds should the EMT apply an absorbent dressing moistened with sterile saline and then cover it with an occlusive dressing?
   a. A gunshot wound to the abdomen from which a loop of intestine is protruding
   b. A stab wound to the chest
   c. A laceration to the neck
   d. The stump of an amputated extremity

37. The pathophysiology of ________ is one in which the pericardial sac fills with blood to the point where the chambers of the heart no longer fill adequately, usually secondary to trauma.
   a. pericardial effusion
   b. hemopneumothorax
   c. cardiac tamponade
   d. commotio cordis

38. Which of the following traumatic chest injuries may result in massive, often fatal internal hemorrhage?
   a. Hemopneumothorax
   b. Hemothorax
   c. Aortic dissection
   d. Cardiac tamponade

39. You are on an EMS standby for a boxing tournament. During one of the matches, one of the female boxers delivers a forcible uppercut to the chest of her opponent, who falls to the ground. The match is declared over on the basis of a TKO. However, the opponent fails to arise following a 1–2 minute interval. EMS is summoned to the ring. You find the patient pulseless and breathing agonal gasps. You suspect which of the following traumatic conditions?
   a. Cardiac tamponade
   b. Aortic dissection
   c. Tension pneumothorax
   d. Commotio cordis
40. **Common signs and symptoms following an injury to a hollow abdominal organ include:**
   a. increasing intrathoracic pressures.
   b. irritation and peritonitis.
   c. massive hemorrhage.
   d. absence of unilateral pulses.

41. **Which of the following patients is at greatest risk of respiratory failure and should be carefully monitored for ventilatory status throughout treatment and transport?**
   a. Tension pneumothorax
   b. Flail chest
   c. Abdominal evisceration
   d. Hemopneumothorax

42. **You are caring for a 27-year-old male who has a puncture wound to the right upper chest. The patient was stabbed with a serrated steak knife by his ex-girlfriend. You have placed an occlusive dressing to the site and began emergent transport to the closest trauma center. However, while en route the patient begins to complain of increasing shortness of breath. You notice a decrease in ventilatory volume and an increase in thoracic diameter. Which of the following options would be the best step to perform next?**
   a. Free a corner or edge of the dressing to release pressure buildup.
   b. Begin providing BVM-assisted ventilations to the patient.
   c. Call dispatch for an ALS intercept en route to the hospital.
   d. Begin providing CPR to the patient.

43. **Which of the following is an accurate definition of a flail chest?**
   a. A lung that has been punctured by a fractured rib, resulting in a buildup of air
   b. A section of the chest wall that is unstable, leading to breathing problems
   c. The fracture of one rib in two or more consecutive places
   d. The fracture of at least four ribs in two or more places

44. **What is the underlying cause of bluish or reddish facial discoloration following a traumatic asphyxiation?**
   a. High pressure on the chest leads to blood being forced from the right atrium into the face and neck.
   b. The patient has become hypoxic due to a chest injury and the finding suggests central cyanosis.
   c. The physiological strain of the body results in a flushed appearance and increased risk of a hypertensive event.
   d. Bluish or reddish facial discoloration is not associated with traumatic asphyxiation; a pale discoloration is usually present.

45. **What is the correct terminology for a wound in which a vacuum has been created within the chest, drawing air into the thorax with each breath?**
   a. A sucking chest wound
   b. A closed tension pneumothorax
   c. An open chest wound
   d. A gurgling chest wound

46. **A patient with jugular vein distention is most likely suffering from which of the following injuries?**
   a. Pneumothorax
   b. Hemothorax
   c. Hemopneumothorax
   d. Tension pneumothorax
47. Your patient was working on a car when it fell off the jack and trapped him between the tire and ground. His face is very blue and his eyes are bloodshot. Which of the following has the patient most likely suffered?
   a. Hemothorax
   b. Traumatic asphyxia
   c. Pneumothorax
   d. Flail chest

48. Which of the following structures connect bone ends, making joints more stable?
   a. Ligaments
   b. Cartilage
   c. Tendons
   d. Periosteum

49. Which of the following allows for smooth movement of bone surfaces against one another at joints?
   a. Smooth muscle
   b. Ligaments
   c. Peritoneum
   d. Cartilage

50. Where could you find the phalange bones?
   a. Upper extremities
   b. Lower extremities
   c. Skull and neck
   d. Hands and feet

51. Which of the following BEST describes the compartment syndrome?
   a. A serious condition caused by the amount of equipment that must be carried in the ambulance compartments.
   b. A life-threatening condition caused by trapping the blood flow by a fracture when the bone ends cut the blood vessels.
   c. A serious condition caused by the bleeding and swelling from a fracture or crush injury that becomes so strong that the body can no longer perfuse the tissues against that pressure.
   d. A non life-threatening condition caused by orthopedic injuries in which blood flow is stopped when the bone ends compress the blood vessels.

52. Which of the following is an injury to the musculature of an extremity?
   a. Luxation
   b. Strain
   c. Fracture
   d. Sprain

53. A traction splint may be used on which of the following musculoskeletal injuries?
   a. A possible fracture of the cervical spine
   b. A possible fracture of the femur
   c. Suspected multiple fractures of the femur, tibia, and fibula
   d. A possible fracture of the humerus

54. Which of the following is appropriate in the examination of a painful, swollen extremity of a conscious patient?
   a. Gently attempting to flex the mid-portion of the bone to check for angulation
   b. Asking the patient to see if he can bear weight on the extremity
   c. Comparing the injured side to the uninjured side
   d. Seeing if you can elicit crepitus on palpation
55. Your patient is a 20-year-old college student who has fallen from a third-level balcony onto a wooden deck below. The patient responds to verbal stimuli, is pale in color with moist skin, and has a very obvious deformity with protruding bone ends of his right forearm. Which of the following is the BEST sequence of intervention for this patient?
   a. Provide manual in-line stabilization of the cervical spine along with assessment of breathing, pulse, and the presence of significant hemorrhage; apply high-concentration oxygen; perform a rapid trauma exam; immobilize to a long backboard; transport; and splint the extremity en route if time and resources allow.
   b. Open the airway; assess breathing; check the carotid pulse; splint the forearm injury; immobilize the patient to a long backboard; apply high-concentration oxygen; and transport.
   c. Provide immediate manual in-line stabilization of the cervical spine; apply high-concentration oxygen by nonrebreather mask; perform a focused history and assessment; apply the cervical collar; apply a padded board splint, sling, and swathe to the forearm injury; and transport.
   d. Provide manual in-line stabilization of the cervical spine along with assessment of breathing, pulse, and the presence of significant hemorrhage; apply high-concentration oxygen; perform a rapid trauma exam; immobilize to a long backboard; and check with medical control about the need to splint the forearm injury prior to transport.

56. Your patient is a 3-year-old girl who is unable to move her elbow after her mother picked her up by the forearm. Proper splinting of this injury would be to immobilize from the ________ to the ________.
   a. wrist; elbow
   b. wrist; shoulder
   c. forearm; humerus
   d. fingertips; shoulder

57. Your patient is a 37-year-old man who tripped while walking down a hill and now has a painful, deformed right leg. Your assessment reveals that the foot is cold and mottled in appearance. You cannot detect a pulse in the foot or ankle. Which of the following is the BEST course of action?
   a. Explain to the patient that, because you cannot detect circulation in his foot, his leg will most likely have to be amputated above the site of the injury.
   b. Gently attempt to straighten the leg to regain a pulse before splinting.
   c. Splint the leg in the position in which it was found and transport without delay.
   d. Transport rapidly to the nearest trauma center.

58. A suspected musculoskeletal injury of the shoulder is BEST managed by which of the following techniques?
   a. Placing the arm in a sling and using a triangular bandage to secure it to the body
   b. Using an upper extremity traction splint
   c. Placing two long padded board splints on either side of the extremity, extending from the shoulder to the wrist
   d. Using a long-arm air splint

59. Messages from the body to the brain are carried by which of the following types of nerves?
   a. Sensory
   b. Skeletal
   c. Motor
   d. Cranial

60. Which of the following is a function of the autonomic nervous system?
   a. Speaking
   b. Running or walking
   c. Constriction of blood vessels
   d. Solving complex math problems
61. **To which of the following sections of the spine are the ribs attached?**
   a. Thoracic
   b. Sacral
   c. Cervical
   d. Lumbar

62. **How many cervical vertebrae are there?**
   a. 7
   b. 12
   c. 5
   d. 4

63. **Which of the following is a sign of possible brain injury?**
   a. A deep laceration of the scalp
   b. Projectile vomiting
   c. Irregular breathing pattern
   d. All of the above

64. **Your patient has been involved in a motor vehicle collision. He has a contusion on his forehead, is confused, and is bleeding from his nose. His heart rate is 90 beats per minute, blood pressure is 80/58 mmHg, respirations are 20 breaths per minute, and his skin is cool and clammy. Which of the following sets of injuries should you suspect?**
   a. Head injury, spine injury, and internal bleeding
   b. Head injury
   c. Head injury and spine injury
   d. Head injury and internal bleeding

65. **Which of the following is a potential complication of hyperventilating a patient with a brain injury?**
   a. Increasing the amount of carbon dioxide in the blood
   b. Increasing blood flow to the brain
   c. Decreasing blood flow to the brain
   d. Decreasing the patient's blood pressure

66. **Which of the following causes worsening of the damage in a brain injury?**
   a. Allowing seepage of cerebrospinal fluid from the ears or nose
   b. Administration of 100 percent oxygen
   c. Failure to keep the patient awake and talking
   d. Improper management of airway and ventilation

67. **Which portions of the spine are the most vulnerable to injury?**
   a. Thoracic and lumbar
   b. Cervical and lumbar
   c. Cervical and sacra
   d. Thoracic and sacra

68. **Which of the following observations may the EMT use to rule out a spinal injury in a trauma patient?**
   a. Patient is able to walk at the scene.
   b. There is a lack of mechanism of injury.
   c. There is a lack of numbness and paralysis of the extremities.
   d. Patient denies pain in his spine.

69. **Which of the following is the underlying cause of neurogenic shock?**
   a. Blood loss from damaged spinal blood vessels
   b. Failure of the heart to adequately pump blood
   c. Extreme emotional response to paralysis
   d. Dilation of blood vessels
70. Your patient is pregnant at 20 weeks' gestation and has been thrown from a horse. She is complaining of back pain. Which of the following is the correct procedure for immobilizing her spine?
   a. Use a short immobilization device and transport the patient in a sitting position.
   b. Place the patient supine on the backboard.
   c. Place the patient on her left side on the backboard.
   d. Place the patient supine on the backboard, then put a pillow under the right side of the backboard.

71. Which of the following injuries is considered an indirect brain injury?
   a. Cerebral laceration
   b. Depressed skull fracture with cerebral penetration by bone fragments
   c. Gunshot wound to the head
   d. Concussion

72. Your patient is a 35-year-old woman who was driving a minivan that was struck in the driver's side door by another vehicle. You notice that when you apply pressure to her sternum with your knuckles she extends her legs and flexes her arms and wrists. When giving your radio report, which of the following terms should you use to describe this?
   a. Tonic-clonic activity
   b. Posturing
   c. Cushing's reflex
   d. Battle's sign

73. Of the following patients, which injury is the highest priority to receive controlled hyperventilation?
   a. A 25-year-old female victim of battery who is awake but complains of a headache and has bloody fluid draining from her nose and left ear
   b. A 15-year-old female who was ejected from a vehicle, struck her head on a tree, and displays decerebrate movements in response to painful stimuli
   c. A 25-year-old male who regained consciousness one or two minutes after being struck on the head by a baseball bat and is now asking repetitive questions
   d. A 70-year-old male who struck his head when he fell in the parking lot, has a large laceration on his forehead, and is disoriented

74. What is the Glasgow Coma Scale (GCS) of your adult male patient who has fallen off a horse, has his eyes open, can follow your commands to squeeze his hands, but is confused about what happened and his whereabouts?
   a. 12
   b. 14
   c. 15
   d. 13

75. When blood accumulates between the brain and the dura mater, what is the result?
   a. Epidural contusion
   b. Subdural contusion
   c. Epidural hematoma
   d. Subdural hematoma

76. As pressure within the cranium increases, which of the following is the result?
   a. Decreased blood pressure, decreased pulse
   b. Increased blood pressure, decreased pulse
   c. Decreased blood pressure, increased pulse
   d. Increased blood pressure, increased pulse
77. **Which of the following is the correct sequence for securing the straps on a long spine board?**
   a. Legs, torso, head
   b. Head, torso, legs
   c. Torso, legs, head
   d. Head, legs, torso

78. **When using a short spine immobilization device, which part of the body is secured last?**
   a. Arms
   b. Torso
   c. Head
   d. Legs

79. **Which of the following is the opening at the base of the skull?**
   a. Foramen magnum
   b. Orbits
   c. Spinous process
   d. Temporomandibular joint

80. **You are treating a 54-year-old female patient who was involved in a domestic dispute; you notice an abrasion to the side of her head. The patient is unresponsive with a blood pressure of 200/110, a pulse of 60 beats per minute, and slightly irregular breathing. The patient's presentation is most likely caused by which of the following?**
   a. Increased intracranial pressure
   b. Coup-contrecoup injury
   c. Closed head injury
   d. Increased arterial pressure

81. **You are treating an unresponsive homeless patient found in an alley. During your assessment you notice bruising behind both ears. This is known as what?**
   a. Fatigue signs
   b. Warrior's signs
   c. Soldier's signs
   d. Battle's signs

82. **You are treating a 35-year-old male patient that has been involved in a motorcycle incident. The patient is unresponsive with a blood pressure of 60/40, a pulse of 66 beats per minute, and respirations of 18 breaths per minute. The patient's presentation is most likely caused by which of the following?**
   a. Cardiogenic shock
   b. Septic shock
   c. Increased intracranial pressure
   d. Neurogenic shock

83. **What is the definition of multisystem trauma?**
   a. Multiple injuries that affect more than one body system.
   b. Trauma in which the patient has more than one serious injury.
   c. A trauma in which there are multiple casualties.
   d. A trauma that requires the response of multiple agencies.

84. **What is the Glasgow Coma Score (GCS) measurement of altered mental status, which according to CDC guidelines necessitates transport to a trauma center?**
   a. 12
   b. 13
   c. 8
   d. 14
85. According to CDC guidelines, a systolic blood pressure of less than _______ indicates a patient should be transported to a trauma center.
   a. 90  
   b. 100  
   c. 110  
   d. 80

86. What are the three elements of the Revised Trauma Score?
   a. GCS, pulse rate, and respiratory rate  
   b. GCS, systolic blood pressure, and pulse rate  
   c. GCS, systolic blood pressure, and respiratory rate  
   d. Level of consciousness, systolic blood pressure, and pulse rate

87. In which of the following situations would a person lose heat by conduction?
   a. Sitting on cold metal bleachers at a football game  
   b. Wearing wet clothing in windy weather  
   c. Breathing  
   d. Going outside without a coat during a cold but calm day

88. Which of the following is the process in which heat is lost from the body as wind passes over it?
   a. Convection  
   b. Hydrodynamic cooling  
   c. Exposure  
   d. Condensation

89. In cases of extreme hypothermia, you will find the patient unconscious, with no discernible vital signs, and skin cold to your touch with stiff joints as if they appear dead. What is the emergency care for these patients?
   a. Contact medical control for input into the best treatment for this patient.  
   b. Call the coroner as indications are the patient is cold and deceased, which is a definitive sign of death.  
   c. Check distal CSM, apply warming packs to the extremities, and transport the patient.  
   d. Assess the carotid pulse for 30 to 45 seconds; if there is no pulse, start CPR immediately and prepare to apply the AED.

90. Allowing a patient's body temperature to increase by preventing further heat loss is referred to as which of the following?
   a. Core rewarming  
   b. Passive rewarming  
   c. Active rewarming  
   d. Natural rewarming

91. The technique for central rewarming requires the application of heat to which of the following areas of the patient's body?
   a. Chest, back, neck, and armpits  
   b. Lateral chest, neck, armpits, and groin  
   c. Head, neck, chest, and back  
   d. Head, neck, chest, and groin

92. Rough handling of a patient with severe hypothermia may result in which of the following?
   a. Ventricular fibrillation  
   b. Seizures  
   c. Heart attack  
   d. Rewarming shock
93. **Localized cold injury occurs due to vasoconstriction and:**
   a. chemical imbalance in the tissues.
   b. blood clots.
   c. ice crystal formation in the tissues.
   d. loss of calcium.

94. **Which of the following should the EMT do during the treatment of localized cold injury?**
   a. Encourage the patient to use the affected part.
   b. Rub the affected area with snow.
   c. Massage the affected area.
   d. Gradually warm the affected area.

95. **Which of the following describes the condition of having an abnormally high body temperature?**
   a. Hyperthermia
   b. Septic shock
   c. Hyperdynamic state
   d. Heat shock

96. **Heat cramps occur due to loss of which of the following substances?**
   a. Water
   b. Salt
   c. Magnesium
   d. Water and potassium

97. **Heat stroke is caused by which of the following mechanisms?**
   a. Blockage of blood flow to the brain
   b. Extreme dilation of all the blood vessels
   c. Failure of temperature regulation mechanisms
   d. Heat-induced swelling of brain tissue

98. **Which of the following is caused by trapped nitrogen gas in the tissues due to a rapid ascent from a scuba dive?**
   a. "Squeeze" injuries of the ear and sinuses
   b. Pulmonary embolism
   c. Decompression sickness
   d. Nitrogen narcosis

99. **Which of the following signs would you NOT expect to see in a patient suffering from severe hypothermia?**
   a. Numbness
   b. Shivering
   c. Drowsiness
   d. Skin cool to touch

100. **Your patient is a 44-year-old female with a history of alcoholism. She has been walking around at an outdoor fair on a hot, sunny day. She is disoriented to time; has hot, dry skin; and appears to be generally weak. Which of the following is the appropriate sequence of treatment for this patient?**
    a. Have the patient drink an electrolyte solution or sports drink and apply cold packs to her neck, armpits, and groin.
    b. Get as much ice as possible from the food vendors at the fair, place the patient in a large container of ice, and apply oxygen by nonrebreather mask.
    c. Give oxygen by nonrebreather mask, have the patient sip a sports drink or electrolyte solution, remove heavy clothing, and place cold packs on her neck, armpits, and groin.
    d. Give oxygen by nonrebreather mask, remove heavy clothing, and place cold packs on her neck, armpits, and groin.