CHAPTER ONE: VITAL SIGNS AND PATIENT ASSESSMENT

1. _______ are guidelines designed to protect health workers from bloodborne pathogens.
   A Safety Codes B Universal Precautions C Common Safeguards D Foresight Regulations

2. The typical pulse rate for women is _______ beats per minute.
   A 70 to 72 B 72 to 76 C 78 to 82 D 84 to 88

3. Tachypnea refers to a slow heart rate.
   A True B False

4. Oral temperatures should not be taken if the patient has had a hot or cold drink within the last _______ minutes.
   A 5 B 10 C 17 D 25

5. Areas of higher local temperature often indicate infection and may be evidenced by _______ (reddening of the skin).
   A bradycardia B erythritol C erythrasma D erythema

6. _______ refers to the blood pressure cuff.
   A sphygmomanometer B stethoscope C forceps D otoscope

7. If the patient reports that there are no symptoms, the radiographer should write _______ for their history.
   A nothing B the letter X C N/A D asymptomatic

8. The most common reason for an incorrect examination is:
   A clerical error B radiographer error C assuming what is ordered D patient miscommunication

9. Regarding checking for visible symptoms in the face, pallor refers to:
   A redness B brown spots C striations D lack of color or whiteness

10. When is it permissible to force a joint into position for an optimal radiograph?
    A if no fracture is suspected B with permission from lead tech C never D with patient permission

CHAPTER TWO: AID FOR MEDICAL EMERGENCIES

11. Warning signs of dyspnea include all the following except:
    A gasping B perspiration C labored breathing D dilated nostrils

12. The brain can survive for _______ minutes without its blood supply.
    A 1 B 2 C 5 D 12

13. Hypovolemic shock is caused by a decrease in the quantity of circulating blood.
    A True B False

14. _______ shock may include mental and physiologic shock caused by overwhelming the nervous system.
    A Neurogenic B Traumatic C Hypovolemic D Anaphylactic

15. Crushing injuries and compound fractures are more likely to induce shock versus other types of injuries.
    A True B False

16. _______ is another word for fainting.
    A Dsypnea B Erythrasma C Stroke D Syncope

17. Dizziness and vertigo are exactly the same problem.
    A True B False

18. If a patient presents with labored breathing, wheezing, and throat tightness, he is exhibiting signs of:
    A vertigo B an asthma attack C internal bleeding D cardiac arrest

19. While in the Trendelenburg position, the patient lies with the feet _______ the head.
    A at the same level as B much lower than C higher than D slightly lower than

20. Hemorrhage is another word for:
    A bleeding B vasoconstriction C vasodilatation D stroke
CHAPTER THREE: DRUGS THAT MAY EFFECT PATIENT COOPERATION

21. Alfenta (alfentanil) is an oral medication that carries a warning for hypotension.
   A True    B False

22. Taking Ativan (lorazepam) by injection warns to avoid ambulation for 8 hours, but it may impair for up to:
   A 15 hours    B 20 hours    C 24 hours    D 24-48 hours

23. Bancap (hydrocodone) maintains a warning of drowsiness, mood changes, and:
   A SOB    B impairment    C reddening of the skin    D severe stomach cramping

24. Inapsine (droperidol) is a drug that warns of:
   A hypertension    B decreased mental alertness    C orthostatic hypotension    D drowsiness

25. Marinol (drobinol (THC)) may impair and cause:
   A mood changes    B brown spots on the abdomen    C itchiness    D elevation in blood pressure

26. Roxanol SR (morphine) is known to cause sedation.
   A True    B False

27. Talwin (pentazocine) may cause sedation, dizziness, euphoria, hallucinations, and:
   A hypertension    B insomnia    C disorientation    D vomiting

28. Clonidine is known to cause severe:
   A hypertension    B hypotension    C mood changes    D swelling in the legs

29. Naproxen has been shown to cause vertigo.
   A True    B False

CHAPTER FOUR: TRAUMA TERMINOLOGY AND FRACTURES

30. A ——— refers to an injury from a blow (usually to the head) or from striking an object.
    A dislocation    B concussion    C hematoma    D stroke

31. A subluxation is a stretching or tearing of a ligament.
    A True    B False

32. A compound fracture occurs when a fracture fragment:
    A breaks in several pieces    B breaks the bone shaft    C does not break skin    D breaks through the skin

33. A(n) ——— fracture is one that occurs away from the impact point.
    A direct    B indirect    C comminuted    D transverse

34. A bayonet fracture is also known as a ——— fracture.
    A intra-articular    B closed    C overlapping    D direct

35. ——— is another name for the distal fragment being angled toward the midline of the patient.
    A Varus    B Valgus    C Anglus    D Axial

36. The ——— fracture is similar to the transverse in that both are straight lines.
    A linear    B spiral    C comminuted    D butterfly

37. A ——— fracture is defined as any fracture with two or more fracture lines.
    A spiral    B transverse    C linear    D comminuted

38. If two fracture lines form a ‘V’, resulting in a triangular fragment, it may be referred to as a ——— fracture.
    A impacted    B butterfly    C cleft    D oblique

39. A ——— fracture is rare, usually caused by gunshot wounds. It results in thin shards of bone fragments.
    A stellate    B impacted    C splinter    D linear

40. When a vertebral body collapses, it is called a ——— fracture.
    A burst    B depressed    C compression    D splinter

41. A ——— fracture is one in which a section of bone is pushed in toward the center of an area.
    A stellate    B burst    C depressed    D compound
42. A ——— fracture is one that involves not only a bone or bones but also damage to an internal organ.
A stress  B stellate  C depressed  D complicated

43. ——— fractures are caused by abnormal stress applied to a normal bone.
A Stress  B Burst  C Oblique  D Cleft

44. Another name for the greenstick fracture is the ——— fracture.
A epiphyseal  B torus  C pathologic  D blowout

CHAPTER FIVE: INJURIES FROM TYPES OF TRAUMA

45. Regarding brain injury, damage occurring on the side opposite to an impact point is sometimes called a(n) ——— injury.
A inverted  B contrecoup  C oppo-  D reverse

46. In general, venous bleeds in the brain occur more quickly versus arterial bleeds.
A True  B False

47. About ——— of all spinal column injuries are caused by traffic accidents.
A 1/8  B 1/3  C 1/2  D 3/4

48. Pneumothorax is caused by a puncture to the:
A heart  B diaphragm  C spleen  D lung

49. In a car accident, impact injury force can travel up the femur causing a posterior hip dislocation and acetabulum rim break. This is called:
A a dashboard fracture  B an aviator’s fracture  C a racecar displacement  D a rodeo-type injury

50. The kidneys lie in the ——— of the abdomen and do not bear trauma well.
A posterior 1/3  B anterior 1/8  C posterior 1/8  D anterior 1/3

51. When a vehicle is hit from the side, it is sometimes called a ——— accident.
A Y-bone  B X-factor  C T-bone  D Y-factor

52. Regarding a ———, a section of the thorax has broken free.
A flail chest  B single fractured rib  C paralyzed diaphragm  D dyspnea episode

53. Rollover accidents can involve injuries caused by a downward force applied along the axis of the body, also called:
A collision trauma  B axial loading  C T-bone injury  D whiplash

54. The ——— fracture involves a bursting of the atlas (C1) with lateral displacement of the fragments.
A shoveler’s  B Washington  C Colles’  D Jefferson

55. A common fracture of the distal radius with posterior displacement is called a ——— fracture.
A Colles’  B Smith’s  C Jefferson  D dashboard

56. A ——— fracture can be found in the fourth and fifth metacarpels.
A mallet  B bumper  C dome  D Boxer’s

57. A midnight fracture commonly refers to the:
A 5th finger  B radial aspect of the wrist  C 5th toe  D patella

58. A dome fracture refers to a fracture of the acetabulum or the:
A tibia  B talus  C temporal bone  D cuboid

CHAPTER SIX: RADIOGRAPHING TRAUMA

59. The first basic principle states that, when possible, obtain to projections that are ——— degrees apart.
A 45  B 90  C 60  D 120

60. When angulation is necessary for an optimal view, it is usually better to angle the body part, rather than the CR.
A True  B False

61. For initial radiographs of the patient on a wood backboard, it takes an increase of about ——— KV for adequate penetration.
A 2  B 10  C 15  D 5
62. To assist in placing a cassette low enough for HBP (horizontal beam projections) on the table top, troughs (also called ————) are used.
A valleys  B dips  C gutters  D sinkers
63. When using grids for HBP, the xray beam can be angled along ———— axis of the grid.
A the long  B the short  C any  D the diagonal
64. Taking into account the anode heel effect, the cathode end of the tube should be placed near the ———— for an AP femur.
A knee  B medial aspect  C hip  D lateral aspect
65. It is recommended that the reproductive organs be shielded when the primary beam is within ———— inches of the reproductive organs.
A 1  B 2  C 5  D 7
66. Doubling the distance between the primary beam and a person holding the patient can decrease the dose that person receives by:
A 2 times  B 3 times  C 4 times  D 7 times
67. Regarding topographical point of the skull, the inner canthus refers to:
A the inner corner of the eye  B top of the head  C chin  D external auditory meatus
68. Regarding topographical point of the skull, the mental point refers to:
A base of the nose  B chin  C between the eyes  D middle of the forehead
69. For an AP projection of the skull, the CR is perpendicular to the film, entering the:
A mental point  B vertex  C glabella  D nasion
70. For a semiaxial AP skull, the CR should be angled ———— degrees caudal if the film is perpendicular to the OML.
A 25  B 30  C 40  D 45
71. A parietoacanthial projection for facial bones is also known as the ———— method.
A open-mouth  B Grashey  C Chamberlain  D Waters
72. A grid should always be utilized for the modified SMV projection for zygomatic arches.
A True  B False
73. For the axiolateral projection of the mandible, the CR should have a cephalic angle of ———— degrees from perpendicular to the film.
A 10  B 25  C 40  D 60
74. For the AP cervical spine, the CR should be angled 15 to 20 degrees:
A cephalic  B caudal  C laterally  D medially
75. If the film is in front of the patient, the CR should be angled 15 to 20 degrees:
A cephalic  B caudal  C laterally  D medially
76. When utilizing the Swimmer’s method to view the lateral cervical spine, the CR should be angled ———— degrees caudally.
A 24 to 24  B 18 to 20  C 10 to 12  D 3 to 5
77. When obtaining a PA chest, a grid is recommended when the KV exceeds:
A 80  B 90  C 110  D 120
78. When positioning the film behind a patient for an AP chest, the top of the film should be ———— inches above the shoulders.
A .5  B 1.5 to 2  C 3  D 5
79. In general, chest x-rays are taken when respirations are suspended after the ———— full inspiration.
A 1"  B 2nd  C 3rd  D 4th
80. When performing an xray on the upper ribs, it’s important to use a ———— contrast technique.
A low  B long-scale  C short-scale  D near zero
81. In obtaining a lateral thoracic spine utilizing the breathing technique, the patient must be breathing ———— during a long exposure time.
A normally  B quickly  C slowly  D deeply
82. In the ———— sternum view, the heart is projected on the sternum.
A LPO  B LAO  C RPO  D RAO
83. The left lateral decubitus position for the abdomen is used to avoid confusing free-air in the abdomen with air in the:
   A. rectum  B. small intestines  C. stomach  D. colon

84. Ideally, the film is centered at ______ when obtaining an AP lumbar spine.
   A. L2  B. L3  C. L3  D. L4

85. Regarding grid use for a cross-table lateral L5-S1 view, the technologist should:
   A. use no grid  B. utilize a low ratio grid  C. utilize a high ratio grid  D. use only 14 by 17 grid/film

86. The AP coccyx view requires a ______ degree caudal angulation of the CR.
   A. 10  B. 15  C. 20  D. 30

87. For an oblique view of the SI joints, the CR should enter the patient ______ inches medial to the ASIS of the side farther from the film.
   A. 1  B. 2  C. 3  D. 4

88. Regarding the view of an oblique hand, the film is centered to the third ______ joint.
   A. MCP  B. PIP  C. DIP  D. CMC

89. In obtaining an AP of the hand of a trauma patient, only a slight flexion of less than ______ degrees is advised for single projections.
   A. 15  B. 10  C. 8  D. 5

90. When obtaining a PA wrist, the fingers may be ______ to reduce the OID (object-to-image-receptor distance).
   A. extended  B. spread apart  C. flexed  D. lifted off the cassette

91. When obtaining an AP of the forearm while the trauma patient is supine on the table, the forearm's ______ aspect should touch the film.
   A. anterior  B. posterior  C. medial  D. lateral

92. For an external (lateral) oblique view of the elbow, the ______ sides of the elbow should be against the film.
   A. anterior and medial  B. posterior and medial  C. anterior and lateral  D. posterior and lateral

93. For a standard lateral elbow projection, the elbow is flexed at 90 degrees with the ______ aspect of the elbow in contact with the film.
   A. anterior  B. posterior  C. lateral  D. medial

94. When obtaining a substitute AP elbow for the proximal forearm, the hand should be:
   A. pronated  B. lateral aspect against film  C. medial aspect against film  D. supinated

95. When obtaining AP or lateral views of the humerus, a grid is:
   A. not usually needed  B. always needed  C. usually needed  D. needed 50% of the time

96. For a transthoracic view of the proximal humerus, the non-affected arm is:
   A. adducted to the body  B. raised above head  C. abducted 90 degrees  D. abducted 45 degrees

97. When obtaining an AP shoulder with internal rotation, the CR should enter at the:
   A. head of the humerus  B. coracoid process  C. surgical neck of the humerus  D. acromion process

98. When obtaining an AP scapula, the arm of the side being examined should be abducted until it is ______ degrees from the body.
   A. 25  B. 50  C. 70  D. 90

99. In an AP x-ray of the toes for interphalangeal joint spaces, the CR should be angled only ______ degrees toward the heel.
   A. 5  B. 15  C. 20  D. 25

100. When performing an oblique x-ray of the foot on a trauma patient, the film is placed at ______ degrees to the foot’s plantar surface.
    A. 10  B. 20  C. 30  D. 45

101. When positioning the patient for a lateral calcaneus x-ray, the CR should enter at a point ______ inches inferior to the malleoli.
    A. .75  B. 1.5  C. 2.5  D. 3

102. An CR for an axial calcaneus x-ray at a level of the base of the:
    A. 3rd metatarsal  B. 1st metatarsal  C. 5th metatarsal  D. cuboid

103. The foot is inverted on an AP mortise ankle to demonstrate the ______ articulation unobstructed.
    A. tibial-talar  B. fibula-talar  C. calcaneus-talar  D. talus-navicular
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<th>Question</th>
<th>Answer</th>
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<tr>
<td>104.</td>
<td>Regarding obtaining an xray of the AP knee, the CR should enter the patient at a point ½ inch inferior to the ______ of the patella.</td>
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<td>A apex B articular surface C base D lateral aspect</td>
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<td>105.</td>
<td>For the inferosuperior projection of the femoral neck, support should be placed below the pelvis to raise it ______ above the table top.</td>
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<td>A 1 inches B 2 inches C 3 inches D 4 inches</td>
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<td>106.</td>
<td>When obtaining an x-ray of the AP view of the pelvis, the patient’s feet should be inverted ______ degrees.</td>
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<td>A 3 B 7 C 10 D 15</td>
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<td>107.</td>
<td>X-ray image magnification is:</td>
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<td>A SOD divided by SID B OID divided by SID C SID divided by OID D SID divided by SOD</td>
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<td>108.</td>
<td>If there is a large difference between thicknesses in a body part, the thick end of a compensating filter should be situated over the:</td>
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<td>A thicker end of the part B average thickness of the part C thinner end of the part D middle of the part</td>
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<td>109.</td>
<td><em>CHAPTER SEVEN: PORTABLE RADIOGRAPHY</em> A minimum of ______ equal measurements from the corresponding collimator-to-cassette corners should make the two parallel.</td>
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<td>A 1 B 2 C 3 D 4</td>
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<td>111.</td>
<td>Reduction in repeat portable exposures may be achieved with a relatively high KV setting, which has ______ exposure latitude.</td>
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<td>A a more narrow B a wider C a more unforgiving D no bearing on</td>
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<td>112.</td>
<td>When adjusting technical factors, it is important to remember that increasing the KV by 15% will allow the MAS to be decreased by:</td>
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<td>A 1/2 B 1/3 C 1/4 D 1/8</td>
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<td>113.</td>
<td>Referring to image characteristics, a lower contrast refers to a(n) ______ scale of contrast.</td>
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<td>A shorter B longer C equal D a much smaller</td>
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<td>114.</td>
<td>In giving the radiologist sufficient x-ray information, portable x-rays should be labeled with the KV, MAS, and:</td>
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<td>A OID B SOD C SID D part thickness</td>
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<td>115.</td>
<td>In general, grids should be used when the KV exceeds:</td>
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<td>A 70 B 100 C 90 D 80</td>
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<td>116.</td>
<td>To counteract problems in getting x-rays on severely obese patients, higher speed screens with ______ grid ratios should be employed.</td>
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<td>A lower B higher C average D 12:1</td>
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<td>117.</td>
<td>The air-gap method places the film about 10 inches from the body part, which causes some of the scatter radiation to:</td>
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<td>A increase B miss the film C reverse its direction D disappear</td>
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<td>118.</td>
<td>In attempting to move the scapulae out of the lung fields for a portable CXR, the shoulders should be ______ and rolled forward.</td>
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<td>A high B stiff C uneven D depressed</td>
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<td>119.</td>
<td>The greatest cause for the unintentional lordotic AP portable CXR is that the CR is more ______ than it should be.</td>
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<td>A vertical B horizontal C lateral D angled caudally</td>
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<td>120.</td>
<td>The radiographer should remember that when standard views are unattainable, two projections 90 degrees apart are best.</td>
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<td>A True B False</td>
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Fill in each blank. There are two options to submit the post-test.

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