

**Specialized Topics in Areas of Radiologic Sciences**  
P.O. Box 2931 Toledo, Ohio 43606  
Phone: 419-471-1973  
Website: [www.xrayhomestudies.com](http://www.xrayhomestudies.com)

## **Unit 35**

# **Radiographic Pathology for Technologists**

**by**

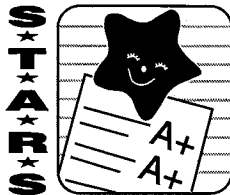
**James D. Mace & Nina Kowalczyk**

**Unit 35 Update:** Please be advised that some of you may be using an earlier edition to complete the post test. Some questions may be in a different chapter than the chapter identified on the newest post test edition. Do NOT be alarmed. We use 2 different answer keys based on the older and newest edition. You will NOT be penalized in the post test evaluation. Thank you.

**Prepared by: Carolyn J. Frigmanski, M.A., B.S.R.T. ®  
Founder, S.T.A.R.S.**

**Expiration Date: Annual Renewal      10.0 Category A c.e.u.s**

**See order form for current expiration date.**



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### Editorial Changes Notification for Participants

Some of our self-learning participants purchased the fourth edition of **Unit 35: Radiographic Pathology for Technologists** BEFORE the fifth edition was made available to the general public and BEFORE they have submitted the answer sheet for certification evaluation. The content is identical in either edition with a few minor chapter changes as listed below. We continue to evaluate post test answer sheets regardless of the edition used since the educational content remains the same, but the answer location may be in a different chapter number. Only 3 of the 140 questions have not been included in the fifth edition.

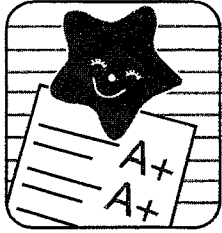
There is no penalty or reduction in Category A ce credits since more than enough questions were prepared for ce credit determination by the A.S.R.T.

The exceptions are listed below for the **fifth edition**:

Chapter 2	Please put N/A for questions 16 & 30 on your post test answer sheet.
	Answers to questions 24; 25; 26; 27 & 38 have been relocated to a newly created Chapter 11 on the Endocrine System.
Chapter 4	Please put N/A for question 65 on your post test answer sheet.
Chapter 7	The Reproductive System is Chapter 7 in the fourth edition and is now Chapter 10 in the fifth edition.
Chapter 10	The Central Nervous System is Chapter 10 in the fourth edition and is now Chapter 7 in the fifth edition.
Chapter 11	Traumatic Disease is Chapter 11 in the fourth edition and is now Chapter 12 in the fifth edition.

I hope this does not create confusion. It allows other participants to submit a valid answer sheet who may have the fourth edition. The fourth edition will be eliminated in the future since both I and the A.S.R.T. want participants to use current editions even though the content has not be altered significantly. Thank you for your consideration.

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- All unit post tests must be returned for Units 1-22 for the designated c.e.u. credit.
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- Units 1 - 12 have also been approved by the Ohio Department of Health for c.e.u.s for radiographers for Ohio state license purposes.

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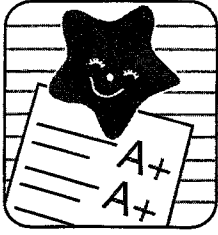
Please feel free to contact me at our e-mail address: [info@xrayhomestudies.com](mailto:info@xrayhomestudies.com) or at the office at (419) 471 - 1973. If I am not available for your call, please leave a message on the answering machine and I will return your call as quickly as possible. We would love to hear from you and others!

***Thank you for choosing S.T.A.R.S. for your continuing education needs.***

Sincerely,

A handwritten signature in cursive script, appearing to read 'Carolyn J. Frigmanski', written over a horizontal line.

**Carolyn J. Frigmanski, M.A., B.S.R.T. ®  
Founder, S.T.A.R.S.**

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## Unit 35

Title: Radiographic Pathology for Technologists by James D. Mace & Nina Kowalczyk

Please complete the answer sheet at the conclusion of this post test and return to the S.T.A.R.S. office.

## Chapter 1

1. The term used to describe a patient's perception of a disease is called a
  - a. sign
  - b. syndrome
  - c. symptom
  - d. manifestation
  
2. The term used to describe diseases that have no identifiable causative factor is
  - a. idiopathic
  - b. iatrogenic
  - c. nosocomial
  - d. asymptomatic
  
3. The number of deaths caused by a particular disease averaged over a population is called
  - a. morbidity
  - b. mortality
  - c. etiology
  - d. lethality
  
4. The most frequent cause for hospitalization in the United States is
  - a. trauma
  - b. cancer
  - c. lung disorders
  - d. heart disease
  
5. Avoiding radiation exposure particularly during the early terms of pregnancy can reduce the likelihood of
  - a. hereditary disease
  - b. congenital defects
  - c. metabolic disease
  - d. degenerative disease
  
6. An example of an autoimmune disorder is
  - a. leukemia
  - b. tuberculosis
  - c. rheumatoid arthritis
  - d. cystic fibrosis
  
7. One of the resultant reactions to cell necrosis is
  - a. capillary constriction
  - b. attraction of leukocytes
  - c. decreased capillary permeability
  - d. leukopenia
  
8. The removal of dead cells and materials in the healing process is called
  - a. debridement
  - b. tissue regeneration
  - c. virulence
  - d. cellular necrosis

9. The most common disturbance of fluid balance is
- a. homeostasis
  - b. hypersecretion
  - c. dehydration
  - d. glandular underactivity

10. The type of tumor that remains localized and is generally noninvasive is a
- a. sarcoma
  - b. malignant neoplasm
  - c. carcinoma
  - d. benign neoplasm

11. In the TNM system of cancer staging, the N represents
- a. noninvasive
  - b. lymph node involvement
  - c. nonmalignant
  - d. new neoplastic tissue

## Chapter 2

12. The bone cell responsible for bone formation is the

- a. osteocyte
- b. osteoclast
- c. osteoblast
- d. trabeculae

13. The type of joint located between the vertebral bodies is classified as

- a. amphiarthrodial
- b. synarthrodial
- c. diarthrodial
- d. fibrous

14. The imaging modality that provides superior contrast resolution in soft tissue detail is

- a. conventional radiographs
- b. computerized tomography (CT)
- c. magnetic resonance imaging (MRI)
- d. bone mineral densitometry

15. The imaging modality that provides excellent display of bony margins or trabecular patterns in tumors is

- a. conventional radiographs
- b. bone mineral densitometry
- c. magnetic resonance imaging (MRI)
- d. spiral or helical computerized tomography (CT)

16. Peak bone mass occurs at the age of

- a. 21
- b. 30
- c. 50
- d. 18

17. Brittle bone disease is a synonym for

- a. osteogenesis imperfecta
- b. rickets
- c. osteoporosis
- d. achondroplasia

18. Incomplete closure of the vertebral canal is called

- a. spinal stenosis
- b. scoliosis
- c. spina bifida
- d. spinal subluxation

19. In osteomyelitis, bone necrosis occurs within

- a. 10 - 14 days
- b. minutes of the infection
- c. 2 - 3 weeks
- d. 24 - 48 hours

20. Radiographic demonstration of a “worm-eaten” appearance in bone is indicative of

- a. tuberculosis
- b. osteomyelitis
- c. severe arthritis
- d. osteopetrosis

21. Rheumatoid arthritis occurs most commonly in

- a. men ages 30 - 40 years
- b. women ages 50 - 60 years
- c. women ages 30 - 40 years
- d. men ages 50 - 60 years

22. “Bamboo spine” is a descriptive term used in the radiographic demonstration of

- a. scoliosis
- b. ankylosing spondylitis
- c. pyogenic arthritis
- d. spina bifida

23. A cystic swelling that develops in connection with a tendon sheath is commonly called a

- a. bursa
- b. gout
- c. tenosynovitis
- d. ganglion

24. The most common form of osteoporosis is

- a. postmenopausal
- b. idiopathic
- c. juvenile
- d. premenopausal

25. Conventional radiographs can identify osteoporosis when bone loss involves

- a. 60 - 80% of its original mass
- b. 10 - 30% of its original mass
- c. 30 - 50% of its original mass
- d. 40 - 60% of its original mass

26. Rickets results in children who experience a deficiency in vitamin

- a. C
- b. D
- c. E
- d. A

27. A fairly common metabolic disorder of unknown etiology in the elderly is

- a. arthritis
- b. hyperthyroidism
- c. osteoporosis
- d. Paget’s disease

28. The most common imaging modality utilized to assess low back pain is

- a. conventional radiographs
- b. bone mineral densitometry
- c. magnetic resonance imaging (MRI)
- d. spiral or helical computerized tomography (CT)

29. Spondylolisthesis occurs most frequently at the vertebral junction of
- a. C1 - C2
  - b. L5 - S1
  - c. T12 - L1
  - d. L3 - L4
30. The anatomic component of the Scotty dog called the "ear" is the
- a. inferior articular process
  - b. pedicle
  - c. lamina
  - d. superior articular process
31. Half of all osteosarcomas appear in the
- a. humerus & shoulder girdle
  - b. vertebral column
  - c. distal femur & proximal tibia
  - d. pelvis & proximal femur
32. A benign bone tumor that affects men more so than women is called a(an)
- a. osteochondroma
  - b. endochondroma
  - c. osteoma
  - d. chondrosarcoma
33. An area of radiolucency with well-defined margins occurring in children ages 3 - 14 years is a
- a. osteochondroma
  - b. simple bone cyst
  - c. chondrosarcoma
  - d. osteosarcoma
34. The type of tumor that radiographically demonstrates a lytic lesion called a nidus is the
- a. osteochondroma
  - b. endochondroma
  - c. chondrosarcoma
  - d. osteoid osteoma
35. One of the malignancies of the skeletal system that may be radiation induced is the
- a. osteochondroma
  - b. endochondroma
  - c. osteosarcoma
  - d. osteoid osteoma
36. The tumor that arises from the medullary canal in children ages 5 - 15 years is called
- a. Ewing's tumor
  - b. chondrosarcoma
  - c. osteoma
  - d. endochondroma
37. The principal signs of skeletal metastasis are
- a. fever & pain
  - b. pain & pathologic fractures
  - c. fractures & swelling
  - d. swelling & painful joints
38. An example of an additive pathology is
- a. osteoblastoma
  - b. osteoporosis
  - c. osteomyelitis
  - d. acromegaly

### Chapter 3

39. Organs located in the middle mediastinum include the

- a. heart, esophagus & trachea
- b. trachea, thymus & thyroid glands
- c. heart, spine & abdominal aorta
- d. great vessels & left ventricle

40. Any condition in the chest which increases aeration requires

- a. an increase in exposure factors
- b. no change in exposure factors
- c. a decrease in exposure factors
- d. an additional expiration film

41. A "sail sign" on pediatric chest radiographs is indicative of

- a. an enlarged thymus gland
- b. airway obstruction
- c. a mediastinal mass
- d. an enlarged thyroid gland

42. Lymph nodes measuring more than 1 cm in size on a CT image may be considered

- a. benign
- b. malignant
- c. normal
- d. below average size

43. A properly positioned endotracheal tube (ET) is located

- a. above the carina
- b. below the carina
- c. above the vocal cords
- d. in the right main stem bronchus

44. Improper position of a central venous pressure (CVP) line can induce

- a. a pneumothorax
- b. respiratory hemorrhage
- c. a stroke
- d. respiratory failure

45. The "ground glass" appearance of the lungs in a pre-term infant is indicative of

- a. a pneumothorax
- b. congestive heart failure
- c. subcutaneous emphysema
- d. respiratory distress syndrome

46. Tuberculous scars may be demonstrated radiographically in the

- a. apex of one or both lungs
- b. costophrenic angles
- c. anterior mediastinum
- d. posterior mediastinum

47. One of the top 5 most common causes of death in the United States is

- a. tuberculosis
- b. emphysema
- c. chronic obstructive pulmonary disease (COPD)
- d. pulmonary embolism

48. The disease classification for the inhalation of foreign inorganic dust particles is called

- a. inflammatory
- b. pneumonconiosis
- c. degenerative
- d. neoplastic

49. Pleural effusion is best demonstrated radiographically on

- a. an upright PA view
- b. an apical AP projection
- c. supine AP projection
- d. an upright lateral projection

50. The most common fatal primary malignancy in the United States for people aged 45 to 70 years is

- a. bronchogenic carcinoma
- b. squamous cell carcinoma
- c. pulmonary metastasis
- d. melanoma

#### Chapter 4

51. The double fold of peritoneum that attaches the duodenum, stomach and transverse colon is called

- a. the lesser omentum
- b. the mesentery
- c. the greater omentum
- d. the fascia

52. The C-loop is part of the

- a. jejunum
- b. ileum
- c. duodenum
- d. ascending colon

53. In an adult, the kidneys are about the length of

- a. three vertebrae
- b. two and a half vertebrae
- c. one and a half vertebrae
- d. four vertebrae

54. The contrast medium of choice when a perforated bowel is suspected is

- a. water-soluble
- b. air
- c. barium sulfate
- d. radiolucent

55. The drug used to reduce peristaltic activity is

- a. Motrin
- b. epinephrine
- c. benadryl
- d. glucagon

56. A small bowel study is typically completed in

- a. 1 to 2 hours
- b. 2 to 3 hours
- c. 4 to 5 hours
- d. 3 to 6 hours

57. The accepted imaging modality for following the progress of GI malignancies is

- a. upper GI series
- b. conventional abdomen series
- c. computerized tomography (CT)
- d. magnetic resonance imaging (MRI)

58. Radioactive urea is used in nuclear medicine imaging in the evaluation of

- a. gastric ulcers
- b. perforation
- c. hiatal hernias
- d. obstruction

59. The most common type of double-lumen decompression tube is the

- a. Levin
- b. Dobhoff
- c. Miller-Abbott
- d. Cantor

60. Infants with esophageal atresia are at risk for

- a. gastric ulcers
- b. aspiration pneumonia
- c. obstruction
- d. perforation

61. A frequent complication for infants with colonic atresia is

- a. obstruction
- b. diarrhea
- c. perforation
- d. fistula formation

62. Hirschsprung's disease is also known as

- a. congenital megacolon
- b. imperforate anus
- c. malrotation
- d. pyloric stenosis

63. Chocolate, alcohol and coffee consumption should be avoided by patients experiencing

- a. gastric ulcers
- b. gastroenteritis
- c. gastroesophageal reflux (GERD)
- d. peptic ulcers

64. Gastroenteritis may result from consuming foods contaminated with

- a. Salmonella
- b. Helicobacter pylori
- c. insecticides
- d. Escherichia coli

65. The best-known small bowel malabsorption disorder is

- a. hypermobility
- b. celiac disease
- c. ileitis
- d. regional enteritis

66. A "cobble-stone" radiographic appearance and string sign are classic findings of

- a. esophageal stricture
- b. ulcerative colitis
- c. megacolon
- d. regional enteritis (Chron's disease)

67. A bowel disorder of unknown etiology occurring more commonly in Jewish persons is

- a. ulcerative colitis
- b. ruptured appendix
- c. gastroesophageal reflux (GERD)
- d. diverticulosis

68. A worm-like defect in a column of barium in the esophagus is indicative of

- a. reflux
- b. polyps
- c. varices
- d. esophagitis

69. A telescoping of a bowel loop into a distal segment by peristalsis is called

- a. intussusception
- b. ileus
- c. volvulus
- d. malrotation

70. The type of diverticulum found at the pharyngoesophageal junction is called

- a. Meckel's
- b. Zenker's
- c. traction
- d. mechanical

71. The malignancy that commonly arises at the gastroesophageal junction is

- a. an adenocarcinoma
- b. a leiomyoma
- c. a sarcoma
- d. a squamous cell carcinoma

72. Most gastric cancers develop in the

- a. body
- b. fundus
- c. pylorus
- d. cardiac orifice

73. The second most common cause of cancer mortality in the United States is found in the

- a. stomach
- b. small bowel
- c. esophagus
- d. colon

## Chapter 5

74. The hepatobiliary organ that functions as both an exocrine and endocrine gland is the

- a. liver
- b. pancreas
- c. gall bladder
- d. spleen

75. The radiologic study performed by a gastroenterologist visualizing the hepatobiliary system and main pancreatic duct is called

- a. a percutaneous transhepatic cholangiogram
- b. an operative cholangiogram
- c. an endoscopic retrograde cholangiopancreatogram
- d. T-tube cholangiogram

76. The third leading cause of death in the United States in individuals between the ages of 45 to 65 is

- a. cirrhosis
- b. pancreatic tumors
- c. gastric cancer
- d. ulcerative colitis

77. The type of hepatitis that accounts for 80% of the infections after blood transfusions is

- a. A
- b. D
- c. B
- d. C

78. Cholelithiasis can be identified by ultrasound by the presence of

- a. a radiopacity
- b. an echogenic focus
- c. a radiolucency
- d. a lack of transmission

79. The medical term for a port-wine superficial birthmark is

- a. hepatoma
- b. adenoma
- c. hemangioma
- d. hematoma

80. A common site for metastasis in the hepatobiliary system is the

- a. liver
- b. pancreas
- c. gall bladder
- d. biliary ducts

81. A rapidly growing, fatal carcinoma that occurs more often in black men than white men is

- a. located in the liver
- b. found in the gall bladder
- c. found in the biliary ducts
- d. located in the pancreas

## Chapter 6

82. The volume of blood the kidneys filter and reabsorb daily is

- a. 50 to 75 liters
- b. 180 liters
- c. 2 to 3 liters
- d. 100 to 150 liters

83. The statistical rate of death for patients experiencing an allergic reaction to contrast agents is

- a. 1 of 40,000
- b. 1 of 100,000
- c. 1 of 20,000
- d. 1 of 400,000

84. The majority of all urinary tract calculi are found at the

- a. major calyces
- b. orifice of the urinary bladder
- c. vesicoureteral junction
- d. proximal ureters

85. The imaging modality of choice in following kidney transplantation patients is

- a. conventional radiography
- b. computerized tomography (CT)
- c. magnetic resonance imaging (MRI)
- d. ultrasound

86. Urine collection bags must remain lower than the patient's bladder to prevent

- a. spillage
- b. antegrade flow
- c. reflux
- d. the formation of a calculus

87. The most commonly occurring fusion anomaly of the kidney is

- a. a horseshoe
- b. renal agenesis
- c. hypoplasia
- d. crossed ectopy

88. A filling defect described as a "cobra head" appearance is indicative of

- a. a urethrocele
- b. a ureterocele
- c. hydronephrosis
- d. ureteral diverticulum

89. An estimated 50% of patients diagnosed with renal hypertension have

- a. malrotation
- b. hydronephrosis
- c. pyelonephritis
- d. polycystic kidney disease

90. The number of all women who experience a urinary tract infection at least once in their lifetime is

- a. 35%
- b. 75%
- c. 50%
- d. less than 25%

91. The retention of urea in the blood is called

- a. hematuria
- b. renal retention
- c. uremia
- d. hypertension

92. A malignant renal tumor predominately found in children is called

- a. renal carcinoma
- b. Wilm's
- c. adenocarcinoma
- d. renal sarcoma

## Chapter 7

93. The transition of glandular breast tissue into adipose tissue in women is called

- a. fat suppression
- b. adipose conversion
- c. tissue transition
- d. involution

94. A disease or condition which predisposes women to have ectopic pregnancies is

- a. pelvic inflammatory disease
- b. ovarian cysts
- c. dysplasia
- d. teratoma

95. The most common benign tumor of the female genital system is called a

- a. teratoma
- b. fibroadenoma
- c. leiomyoma
- d. lipoma

96. Women and men are at increased risk for developing breast cancer if they carry a gene identified as

- a. BRCA1
- b. BRCA2
- c. CA1
- d. BRCA

97. The most common site for an ectopic pregnancy occurs in the

- a. abdominal cavity
- b. cervix
- c. ovary
- d. uterine tube

98. The medical term for undescended testicles is

- a. cryptorchidism
- b. dysplasia
- c. agenesis
- d. testicular torsion

99. A new treatment modality utilized to destroy adenocarcinoma cells in the prostate gland is

- a. external radiation therapy
- b. radioactive seed implants
- c. cryosurgery
- d. genetic engineering

100. At least 40% of malignant testicular tumors are known as

- a. seminomas
- b. teratomas
- c. choriocarcinomas
- d. adenocarcinomas

## Chapter 8

101. The anatomic pacemaker of the heart is the

- a. left ventricle
- b. sinoatrial node
- c. atrial-ventricular node
- d. bicuspid valve

102. The minimum kVp for chest radiography is

- a. 120
- b. 80
- c. 100
- d. 150+

103. The procedure in which a patient swallows a flexible probe containing a transducer is called

- a. transesophageal echocardiography
- b. M-mode echocardiography
- c. 2-D echocardiography
- d. Doppler imaging

104. The most widely used nuclear cardiology exam for post bypass and angioplasty patients is a

- a. gated cardiac blood pool scan
- b. ventilation scan
- c. positron emission tomography (PET) scan
- d. myocardial perfusion scan

105. The use of a high-intensity anticoagulant dripped over a period of hours is utilized in

- a. thrombolysis
- b. percutaneous transluminal angioplasty
- c. embolization
- d. cardiac catheterization

106. Approximately 80% of infants born before 28 weeks of gestation may possess

- a. coarctation of the aorta
- b. patent ductus arteriosus
- c. ventricular septal defects
- d. ductus arteriosus

107. The most common cause of chronic valve disease in the heart is

- a. rubella
- b. chicken pox
- c. rheumatic fever
- d. mumps

108. Hypertension in the pulmonary artery and enlargement of the right ventricle is suggestive of

- a. congestive heart failure
- b. valvular stenosis
- c. atrial septal defect
- d. cor pulmonale

109. The medical term for hardening of the arteries is

- a. atherosclerosis
- b. ischemia
- c. thrombosis
- d. plaque formation

110. The majority of aortic aneurysms occur

- a. in the aortic arch
- b. above the celiac axis
- c. below the level of the renal arteries
- d. in the descending aorta

111. Thrombus formation generally occurs in

- a. deep thigh veins
- b. deep calf veins
- c. cerebral veins
- d. pulmonary veins

## Chapter 9

112. The life span of an erythrocyte is

- a. 120 days
- b. 10 days
- c. 2 weeks
- d. 3 months

113. The universal blood donor type is

- a. AB
- b. A
- c. O
- d. B

114. The cell type that can adversely affect the success of tissue grafts and organ transplants is the

- a. leukocyte
- b. T cell
- c. erythrocyte
- d. lymphocyte

115. The preferred imaging exam for diagnosing bone marrow diseases is

- a. lymphangiography
- b. magnetic resonance imaging
- c. nuclear medicine perfusion scans
- d. ultrasound

116. The single most important factor in controlling infection is considered to be

- a. wearing total body protective apparel
- b. wearing a gown and mask
- c. proper handwashing
- d. using isolation rooms at all times

117. The reduction of opportunistic infections and deaths among AIDS patients is attributed to

- a. highly active antiretroviral therapy (HAART)
- b. frequent testing and screening
- c. genetic engineering
- d. minimizing sexual encounters

118. The most common malignancy in AIDS patients is

- a. bronchial carcinoma
- b. skin cancer
- c. lymphadenoma
- d. Kaposi's sarcoma

119. The neoplastic disease involving the overproduction of white blood cells is called

- a. pernicious anemia
- b. leukemia
- c. leukopenia
- d. myeloma

120. The cells associated with Hodgkin's disease are known as

- a. leukocytes
- b. pneumococcal bacteria
- c. Reed-Sternberg
- d. T-cells

### Chapter 10

121. Cerebral spinal fluid is produced by the

- a. choroid plexus
- b. third ventricle
- c. foramen of Magendie
- d. dura mater

122. The imaging modality utilized to confirm brain death is

- a. ultrasound
- b. computed tomography
- c. magnetic resonance imaging
- d. radionuclide brain scan

123. Excessive amounts of cerebral spinal fluid in the ventricles of the brain is identified as

- a. meningocele
- b. hydrocephalus
- c. meningitis
- d. encephalitis

124. The anatomic portion of an intervertebral disc that herniates is called the

- a. annulus fibrosus
- b. dura mater
- c. nucleus pulposus
- d. spinal nerve

125. A chronic and progressive debilitating disease of the central nervous system most commonly affecting individuals 20 to 40 years in age is called

- a. spondylosis
- b. cerebrovascular accident
- c. ischemic stroke
- d. multiple sclerosis

126. A star-shaped neuroglial cell containing many branching extensions is called

- a. an astrocytoma
- b. a meningioma
- c. a medulloblastoma
- d. an ependyoma

127. The most common type of primary spinal neoplasm is

- a. an astrocytoma
- b. a meningioma
- c. a medulloblastoma
- d. an ependyoma

### Chapter 11

128. In the United States, trauma is the most common cause of death for people between the ages of

- a. 16 and 35 years
- b. 21 and 45 years
- c. 1 and 34 years
- d. 30 and 50 years

129. The trauma level status that requires 24/7 coverage by versatile radiographers performing a wide variety of procedures is
- a. I
  - b. II
  - c. III
  - d. IV
130. The most frequent vertebral fracture is the \_\_\_\_\_ fracture.
- a. compound
  - b. compression
  - c. comminuted
  - d. impacted
131. The major neurologic cause of mortality and morbidity in people under 50 years of age is
- a. spinal cord trauma
  - b. cervical spine fractures
  - c. herniation of the meninges
  - d. head trauma
132. A subdural hematoma is located between the
- a. dura mater and the skull
  - b. brain stem and dura mater
  - c. dura mater and the arachnoid layer
  - d. dura mater and pia mater
133. The minimum number of views to be taken to adequately determine fracture alignment is
- a. one survey
  - b. three - AP, Lateral and oblique
  - c. two at right angles
  - d. as many as possible
134. A fracture that does not heal within the normal period of time is referred to as
- a. malunion
  - b. delayed union
  - c. nonunion
  - d. provisional union
135. The fracture which results when a fragment of bone is pulled away from the shaft is called
- a. an avulsion
  - b. an epiphyseal
  - c. a greenstick
  - d. an occult
136. A fracture that results when the fifth and occasionally the fourth metacarpal sustain a blow is
- a. described as a Bennett's fracture
  - b. known as a Monteggia's fracture
  - c. called a Colles' fracture
  - d. described as a boxer's fracture
137. The best radiographic projection to utilize for demonstration of a blow out fracture is the
- a. AP
  - b. parieto-acanthal (modified Water's method)
  - c. lateral
  - d. verticosubmental (Schuller)
138. The first sign of a seizure disorder may be a posterior dislocation of the
- a. hip
  - b. knee
  - c. shoulder
  - d. lumbar vertebrae

139. The mortality rate associated with shaken baby syndrome is

- a. 25%
- b. 50%
- c. 70%
- d. 40%

140. In performing lateral decubitus radiographs of the abdomen, the patient should lie on their left side for at least

- a. 5 minutes
- b. 20 minutes or more
- c. 15 minutes
- d. 10 minutes



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**Please place your lettered selection for each question in the respective box and return *ONLY this post test sheet to S.T.A.R.S.***

1.	11.	21.	31.	41.	51.	61.
2.	12.	22.	32.	42.	52.	62.
3.	13.	23.	33.	43.	53.	63.
4.	14.	24.	34.	44.	54.	64.
5.	15.	25.	35.	45.	55.	65.
6.	16.	26.	36.	46.	56.	66.
7.	17.	27.	37.	47.	57.	67.
8.	18.	28.	38.	48.	58.	68.
9.	19.	29.	39.	49.	59.	69.
10.	20.	30.	40.	50.	60.	70.

**Please continue on the reverse side.**

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71.	81.	91.	101.	111.	121.	131.
72.	82.	92.	102.	112.	122.	132.
73.	83.	93.	103.	113.	123.	133.
74.	84.	94.	104.	114.	124.	134.
75.	85.	95.	105.	115.	125.	135.
76.	86.	96.	106.	116.	126.	136.
77.	87.	97.	107.	117.	127.	137.
78.	88.	98.	108.	118.	128.	138.
79.	89.	99.	109.	119.	129.	139.
80.	90.	100.	110.	120.	130.	140.