

16. **Between the radiating calcium columns, the ——— (bone-forming cells) construct the bone.**
A megakaryocytes B erythrocytes C monocytes D osteoblasts
17. **The ——— represents the area between the shaft and the end of a bone where growth or an increase in length occurs.**
A epiphyseal zone B head C neck D base
18. **A(n) ——— is a projecting ridge of bone.**
A condyle B crest C epicondyle D coronoid process
19. **A ——— refers to a narrow slit between two bones.**
A foramen B meatus C fissure D sinus
20. **The bones of the skull are united by one type of immovable joint called a:**
A glider B hinge C suture D ball and socket
21. **Muscles are attached to bones by ——— (cords of white fibrous connective tissue).**
A cartilage B adipose tissue C lymphatic tissue D tendons
22. **The study of changes in the structure or function of the body caused by disease or trauma is called:**
A radiology B physiology C embryology D pathology
23. **The body type possessed by almost half of all people is the ——— type.**
A asthenic B hypersthenic C hyposthenic D sthenic
24. **What fibrous membrane covers the outer layer of a long bone?**
A basilar B epithelial C periosteum D perichondrium
25. **Under which classification of bones would the humerus be listed?**
A flat B short C irregular D long
26. **A bone grows when there is activity in the:**
A periosteum B epiphyseal zones C endosteum D fontanelles
27. **Normally, at what age have the epiphysis and shaft of the bones all grown together?**
A birth B five years C fifteen years D twenty-five years
28. **What name is usually given to a hammer-like projection found on a bone?**
A coracoid process B coronoid process C malleolus D tubercle
29. **A hole or opening in a bone is referred to as a:**
A foramen B fissure C meatus D fossa
30. **The chief function of synovial fluid is to:**
A line joint capsules B act as cushions between bones C produce hyaline cartilage D lubricate the joint
31. **The heart is located ——— to the sternum.**
A superior B posterior C anterior D inferior

32. In supination of the hand, the palm is turned in what direction?
A from posterior to anterior B from flexion to extension C from anterior to posterior D from extension to flexion

LESSON 2: REGIONAL OSTEOLOGY

33. Each hand has ——— phalanges.

A 16 B 18 C 22 D 14

34. The radial notch, on the lateral side of the coronoid process, permits articulation with the radius.

A True B False

35. The greater tubercle is situated on the ——— aspect of the humeral head.

A posterior B medial C lateral D anterior

36. The terms "tubercle" and "tuberosity" are used interchangeably.

A True B False

37. The lateral angle is the thickest part of the bone and is sometimes called the ——— of the scapula.

A greater tuberosity B neck C head D peripheral ridge

38. The shoulder is a ball-and-socket joint between the head of the humerus and the ——— cavity of the scapula.

A Hamilton's B acetabular C glenser D glenoid

39. The wrist is a ——— joint.

A hinge B pivot C condyloid D gliding

40. The pelvic ——— is composed of the two os coxae (hip bones), the sacrum, and the coccyx.

A rim B obturator foramen C ischium D girdle

41. The tibia, or ———, is situated in the medial portion of the leg. It is a long bone consisting of a shaft and two extremities.

A hook bone B shinbone C hammer bone D runner's bone

42. The fibular styloid process, or ———, projects from the superior surface of the head.

A pinnacle B apex C peak D cap

43. The patella, or kneecap, is a ——— bone developed in the extensor tendon of the knee and is situated on the front of the knee joint.

A sesamoid B flat C irregular D short

44. The os coxa consists of three parts: the ilium, ischium, and:

A obturator foramen B acetabulum C coccyx D pubic

45. The superior ramus projects ——— from the pubic body.

A anterolaterally B anteromedially C posteromedially D posterolaterally

46. The hip is formed by the head of the femur articulating with the ——— of the os coxa.

A ischial spine B pubic tubercle C obturator foramen D acetabulum

47. The ——— is the joint between the lateral condyle of the tibia and the head of the fibula.

A inferior tibiofibular B superior tibiofibular C lateral tibiofibular D medial tibiofibular

48. The thoracic and sacral curves are termed ——— curves because they develop before birth.
 A primary B initiating C "out of the gate" D fetal
49. A typical vertebra contains a ———, or body, which is the disk-like central portion.
 A notch B foramen C neural arch D centrum
50. C-3 to C-7 have small ———-shaped bodies.
 A triangular B circular C oval D ovoid
51. The first cervical vertebra (C-1) is named the ——— because it supports the head:
 A base B vertebral block C atlas D capo
52. The body of the first vertebra is transferred to the ——— (second cervical vertebra) where it becomes the dens (odontoid process).
 A axis B atlas C vertebral block D base
53. In the adult, the sacrum is a single bone formed by the fusion of the ——— sacral segments:
 A six B five C four D three
54. The sternal angle marks the position of the ——— ribs.
 A third B second C seventh D fifth
55. The first ——— pairs are the true (sternal) ribs; their anterior extremities articulate with the sternum by means of the costal cartilages.
 A seven B six C three D four
56. The cranium is composed of ——— bones.
 A seven B five C six D eight
57. Each of the two temporal bones consists of four divisions: the squama, ———, tympanic, and petrous portions.
 A mitochondrial B mukol C mastoid D mandibular
58. The mastoid portion constitutes the posterior part of the ——— bone.
 A parietal B temporal C occipital D vomer
59. ———, the sella turcica is bounded by an eminence, the tuberculum sellae.
 A Posteriorly B Anteriorly C Laterally D Inferiorly
60. The perpendicular plate is joined inferiorly with the ——— to help form the nasal septum.
 A vomer B maxilla C nasal concha D mental tuberosity
61. The ——— bones are two very thin, fragile bones situated at the front part of the medial walls of the orbits.
 A ethmoid B zygomatic arch C palatine D lacrimal
62. The ——— bones are two L-shaped bones that contribute to the formation of the lateral wall of the nasal cavity.
 A ethmoid B zygomatic arch C palatine D lacrimal
63. The ——— bone is a horseshoe-shaped bone below the mandible and above the styloid processes of the temporal bone.
 A hyoid B clavicle C manubrium D C2 vertebral

64. Posterior to the zygomatic process is the opening of the ——— acoustic (auditory) meatus (EAM) of the temporal bone.
 A elastic B efferent C ectopic D external
65. Laterally, the first of the proximal row of carpal bones is the:
 A pisiform B scaphoid C trapezium D hamate
66. The olecranon process is a part of which bone?
 A clavicle B humerus C radius D ulna
67. What is the name of the process of the scapula which articulates with the clavicle?
 A acromion B coracoid C coronoid D deltoid
68. Excluding the sesamoid bones, the foot consists of ——— bones.
 A 15 B 18 C 26 D 31
69. Which vertebra lies in the same transverse plane as the iliac crest?
 A T-9 B L-1 C L-3 D L-4
70. The three parts of the sternum are the manubrium, the body, and the:
 A xiphoid process B clavicle C costal cartilage D coracoid process
71. Which part of the temporal bone contains the external acoustic meatus?
 A mastoid B petrous C squama D tympanic
72. Which of the following bones houses the pituitary gland?
 A ethmoid B occipital C palatine D sphenoid
73. Which process of the maxilla serves as a foundation for the upper teeth?
 A alveolar B frontal C palatine D zygomatic
74. How many pairs of sinuses are found in the paranasal sinus group?
 A 2 B 4 C 6 D 8
75. The joints between the phalanges are called the:
 A metacarpal joints B carpometacarpal joints C interphalangeal joints D intermetacarpal joints
- LESSON 3: BODY SYSTEMS OTHER THAN SKELETAL**
76. The digestive system consists of the ——— tract or canal which extends from the mouth to the anus.
 A anaphia B alkaloid C alimentary D acrocentric
77. There are three primary pairs of salivary glands, the submandibular, the sublingual, and the:
 A endocrine B pituitary C pineal D parotid
78. By means of ——— duct, the serous secretions of the parotid gland are channeled through the muscles of the cheek into the mouth.
 A Stensen's B Swanson's C Schubert's D Sorelli's
79. The esophagus is a musculomembranous tube about ——— inches in length that extends from the pharynx to the stomach.
 A 10 B 5 C 15 D 20

80. The first portion of the duodenum, the duodenal bulb or ———, is often the site of duodenal ulcers.
 A roof B cap C peak D summit
81. The large intestine is about ——— feet long and extends from the end of the ileum to the anus.
 A 2 B 5 C 3 D 8
82. The common bile duct is about 3 inches long and communicates with the duodenum by way of the ampulla of Vater and the:
 A sphincter of Oscar B sphincter of Otto C sphincter of Oddi D sphincter of Ottavia
83. The liver secretes about ——— milliliters of bile per day.
 A 650 B 400 C 350 D 200
84. Generally, the right kidney is slightly (——) lower than the left.
 A about 1/5 inch B about 1/8 inch C about 1/2 inch D about 1 inch
85. On the longitudinal section, the kidney consists of a cortex or external part, a medulla or internal portion, and the renal:
 A pouch B cavity C sac D pelvis
86. The kidneys excrete from about 1,000 to 1,800 cubic centimeters of urine in:
 A 4 hours B 24 hours C 2 hours D 48 hours
87. The prostatic urethra, about 3 centimeters long, extends from the urethral orifice in the bladder through the prostate gland.
 A True B False
88. ——— extends from the end of the membranous region to the external urethral orifice at the tip of the penis.
 A The cavernous urethra B The central urethra C The chamber urethra D The collagen urethra
89. The vas deferens is a thick-walled tube about ——— centimeters long.
 A 20 B 15 C 45 D 3
90. ——— (bulbourethral glands) are two small, somewhat lobed bodies about the size of a pea, located just above the bulb of the penis.
 A Cowper's glands B Callie's glands C Cooper's glands D Callahan's glands
91. The interior of the ovary, the ———, consists of connective tissue that is abundantly supplied with blood vessels.
 A pleura B stroma C ovastium D periovarium
92. The mons pubis is the rounded eminence ——— to the symphysis pubis.
 A inferior B lateral C posterior D anterior
93. The mammary glands may be considered an accessory of the reproductive system.
 A True B False
94. The exchanges between the air and the blood take place in the ——— of the lungs.
 A bronchioles B tubules C alveoli D capillaries
95. The ———, or voice box, is in the upper and front part of the neck.
 A cricoid portion B tracheal rings C larynx D pharynx

96. The trachea consists of 16 to 20 ———-shaped cartilages, superimposed one upon the other.
 A T B C C O D S
97. The normal rate of quiet respiration in an adult is between ——— cycles per minute.
 A 10 to 12 B 22 to 25 C 16 to 20 D 8 to 10
98. A concentrated mass of nerve cells (——) in any part of the central nervous system is called a nucleus.
 A white matter B gray matter C plexus D trigeminal base
99. The arachnoidea, the middle meningeal tissue, is a delicate ——— membrane that loosely envelops the brain and the spinal cord.
 A mucous B synovial C connective D serous
100. The pia mater, the innermost ——— membrane, is a loosely arranged network of vascular tissue.
 A meningeal B synovial C connective D cutaneous
101. The ——— quadrigemina act as relay centers in auditory and visual reflexes.
 A corpora B gland C lobe D pons
102. The pons is ——— to the cerebellum and lies between the midbrain and the medulla oblongata:
 A inferior B lateral C posterior D anterior
103. The lateral ventricles communicate with the third ventricle through the interventricular foramen (foramina of ——).
 A Hettwer B Monro C Morrison D Hamilton
104. The spinal cord occupies the upper —— of the spinal canal.
 A two-fifths B two-thirds C one-third D one-half
105. The —— is the largest collection of lymphoid tissue in the body.
 A pancreas B medulla oblongata C spleen D liver
106. In the average male, the heart weighs about 500 grams.
 A True B False
107. The mitral valve (—— valve) between the left atrium and ventricle.
 A bicuspid B tricuspid C aortic D pulmonary
108. The body of the adult normally contains —— quarts of blood.
 A 9 to 10 B 6 1/2 to 8 C 3 to 4 D 4 1/2 to 5 1/2
109. The —— vein begins in the abdomen as an extension of one of the tributaries of the inferior vena cava.
 A azygos B superficial temporal C internal jugular D left innominate
110. If a clot or any foreign material travels from its point of origin until it becomes lodged in a smaller vessel, it is called an embolism.
 A True B False
111. The thyroid gland lies in the —— region of the neck below the lower border of the larynx.
 A inferior B lateral C posterior D anterior

112. The pineal gland is frequently this gland is called the hypophysis.
A True B False
113. ACTH causes the adrenal cortex to produce ——— quantity of hormones.
A an increased B a slightly decreased C no change D a strongly decreased
114. The islet cells of the ——— produce the hormone insulin.
A gallbladder B liver C pancreas D spleen
115. Which of these secretions is carried by Wharton's duct?
A bile B saliva C urine D insulin
116. What is the name of the upper opening of the stomach?
A cardiac orifice B fundus C pyloric orifice D epigastrium
117. The appendix is attached to the lower end of the:
A anal canal B cecum C colon D duodenum
118. The hepatic duct transmits secretions from which organ?
A kidney B liver C stomach D pancreas
119. Inguinal lymph nodes are found in the:
A neck B armpits C groin D elbow
120. An organ of the body that cleanses the blood and also produces lymphocytes is the:
A liver B heart C spleen D pancreas

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