# NBCE <br> MOCK BOARD QUESTIONS <br> <br> GENERAL ANATOMY 

 <br> <br> GENERAL ANATOMY}

1. For more exacting location purposes clinicians divide the abdominal cavity into nine regions. Which is NOT one of those regions listed below?
A. Left splenic region
B. Right lumbar region
C. Umbilical region
D. Left inguinal region
2. Which of the following statements in regard to the femoral triangle is

INCORRECT?
A. Its medial boundary is formed by the gracilis muscle
B. Its superior border is formed by the inguinal ligament
C. Its "floor" is iliopsoas tendon and pectineus muscle
D. The cutaneous innervation of this triangle is via the genitofemoral nerve
3. The significance of the sternal angle is that it:
A. Marks the point of attachment of the xiphoid process to the body of the sternum
B. Locates the attachment of the first rib
C. Indicates the location of the jugular notch
D. Locates the sternal end of the second rib
4. Which statement is INCORRECT concerning the female breast?
A. Most of the lymphatic drainage is via the axillary lymph nodes (75\%)
B. The mammary gland is a modified sebaceous gland
C. The areolae in white, nulliparous women tend to be pink; darkening to brown during pregnancy
D. The internal thoracic artery (formerly known as the internal mammary) is the chief blood supply
5. Clinically the upper limb is measured from the point of the shoulder. This point is produced by the prominence of:
A. Rounded upper end of the deltoid muscle
B. Acromion process
C. Coracoid process
D. Lateral end of clavicle
6. All of the following statements concerning the xiphosternal junction are correct EXCEPT:
A. It is a landmark in the median line for the upper surface of the liver
B. It is a landmark for the diaphragm
C. It is a landmark for the lower border of the heart
D. It is located at the vertebral level of the eleventh thoracic bone
7. What portions of the os coxa fuse to form the obturator foramen?
A. Pubic bone
B. Ischium bone
C. Ilium bone
D. A, B , and C
8. Mark the INCORRECT statement about the clavicle.
A. The clavicle is subcutaneous
B. It is the first bone to ossify; a long bone but has no medullary cavity
C. It has an anterior concavity in medial $2 / 3$ and a posterior convexity in lateral 1/3
D. The coracoclavicular ligament attaches coracoid of scapula to the inferior aspect of the clavicle
9. The knee joint is adapted for weight-bearing because of the:
A. Congruity of bony surface of the tibia and femur
B. Strength of its ligament and muscles
C. Flat surface of tibial condyles
D. Curved, large femoral condyles
10. Which statement about the patella is INCORRECT?
A. It is a small sesamoid which is associated with the knee joint
B. The lateral fossa is the largest
C. The apex is directed posterior
D. There is no bursa between its anterior surface and the skin
11. How many tarsal bones are found on one foot normally?
A. 7
B. 8
C. 6
D. 9
12. Which of the following statements about the fibula is CORRECT?
A. It is an important bone associated with the knee joint
B. At its distal aspect, you may locate its digital fossa at posteromedial aspect
C. At its proximal portion articulate with tibia forming a strong knee joint
D. It is not involved in the ankle joint
13. The head of the talus articulates with:
A. Lateral cuneform
B. Navicular
C. Medial cuneform
D. Calcaneus
14. Which of the following statements is INCORRECT?
A. Pectoralis major arises from both the sternum and ribs
B. Rhomboid muscles are innervated via the dorsal scapular nerve
C. Glenoid fossa of the scapula presents a deep cavity in order to accommodate the head of humerus
D. Action of the latissimus dorsi is to adduct and medial rotate the glenohumeral joint
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15. During our study of the clavicle, it was noted that:
A. The acromion end is located medially
B. The subclavian groove can be located at its inferior surface
C. The costoclavicular tubercle attaches its distal end to the first rib
D. At its sternal end you can locate the attachment of pectoralis minor muscle
16. The proximal row of carpal bones includes all of the following EXCEPT:
A. Scaphoid
B. Lunate
C. Pisiform
D. Hamate
17. Which of the following bones has a proximal head?
A. Metacarpus
B. Humerus
C. Ulna
D. Radius
18. Which of the following words refers to the bones of the fingers?
A. Patechia
B. Ecchymosis
C. Onycho
D. Phalango
19. The joints of the pectoral girdle include all of the following $\boldsymbol{E X C E P T}$ :
A. Sternoclavicular joint
B. Glenohumeral joint
C. Acromioclavicular joint
D. Scapulothoracic joint
20. Olecranon bursitis is also known as:
A. Tennis elbow
B. Golfers elbow
C. Students elbow
D. Saturday night's palsy
21. Which of the following statements about the elbow joint is CORRECT?
A. On it lateral aspect, you can locate the annular ligament of the radius
B. It is a hinge type of a joint
C. Its blood supply is via the ulnar, brachial, and radial arteries (collateral arteries)
D. On its medial side, it has a weak collateral ligament
22. The major blood supply to the acromioclavicular joint is via the $\qquad$ arteries.
A. Thoracoacromion, Thyrocervical
B. Lateral thoracic, Subscapular
C. Dorsal scapular, Supreme thoracic
D. Posterior humeral circumflex, Thyrocervical
23. Which of the following statements about the hip joint is NOT TRUE?
A. Its articular capsule is formed via three bundles of ligaments
B. Its only blood supply is provided by a direct branch from the femoral artery
C. The hip joint is supplied by the acetabular branch of the obturator artery
D. Y-shaped ligament of the articular capsule, is also known as the iliofemoral ligament
24. What is most frequently injured major articulation in the lower extremity (and in the body in general)?
A. Talocrural joint
B. Hip joint (coxofemoral)
C. Knee joint
D. $1^{\text {st }}$ metacarpophalangeal joint
25. What constitute the transverse tarsal joint of the foot?
A. Distal row of tarsals and proximal part of metatarsals
B. Mainly talonavicular joint and calcaneocuboid joint
C. Articulation between the proximal and distal row of tarsals
D. The articulation between the talus and the calcaneus
26. The lateral collateral (fibular) ligament
A. It is not attached to the lateral meniscus of the knee joint
B. It is not an important structure associated with the knee joint
C. It is directly associated with the pens anserinus
D. It presents a small fiber that contributes into the posterior cruciate ligament of the knee joint.
27. Synovial joints can be classified as to type. Which type pairing is INCORRECT?
A. Acromioclavicular joint; plane type
B. Sternoclavicular; ball and socket type
C. Humeroulnar; hinge type
D. Radioulnar (proximal); pivot type
28. The medial meniscus of the knee is NOT normally attached to what structure?
A. Posterior meniscofemoral ligament
B. Coronary ligament
C. Transverse ligament of the knee
D. Tibial collateral ligament
29. The deltoid ligament of the ankle joint
A. Holds the calcaneus and navicular against the talus
B. Attaches the medial malleolus to the tarsus
C. Has anterior tibiotalar part
D. Has no parts
30. The conoid and trapezoid ligaments are components of the $\qquad$ ligaments.
A. Sternoclavicular
B. Coracoclavicular
C. Coracoacromial
D. Interclavicular
31. Which of the following statements about the extensor carpi radialis brevis muscle is CORRECT?
A. Arises from the posterior aspect of the radial bone
B. Arises from the interosseous membrane of the forearm
C. Inserts into the base of the third metacarpal bone
D. Inserts into the base of the second metacarpal bone
32. Which of the following muscles is the chief extensor of the forearm?
A. Deltoid muscle
B. Brachioradialis muscle
C. Triceps branchii muscle
D. Anconeus muscle
33. Which muscle is not attached to the clavicle under normal circumstances?
A. Deltoid muscle
B. Subclavius muscle
C. Middle scalene muscle
D. Trapezius muscle
34. Which hand muscle is NOT considered an intrinsic hand muscle?
A. Opponens pollicis muscle
B. Flexor digiti minimi brevis muscle
C. Extensor pollicis brevis muscle
D. Abductor pollicis longus muscle
35. Which of the following statements is INCORRECT?
A. Superficial muscle group of the forearm, originate from the shaft of the ulnar bone.
B. Flexor carpi ulnaris muscle inserts into the pisiform, hook of hamate, and base of the fifth metacarpal bone
C. Flexor digitorum superficialis muscle inserts into the mid phalanx of second to fifth digits
D. Flexor pollicis longus muscle arises from the anterior surface of radius bone
36. Which of the following statements is CORRECT?
A. Infraspinatus muscle inserts into the greater tubercle of the humerus
B. Subscapularis muscle is innervated by the musculocutaneous nerve
C. Teres minor muscle inserts into the lesser tubercle of the humerus
D. Teres major is innervated by the axillary nerve
37. While dissecting the foot you remove the skin and plantar fascia exposing the muscle which makes up the mid portion of the first layer of muscles. Name it.
A. Flexor digitorum brevis
B. Abductor hallucis
C. Flexor digitorum longus
D. Quadratus plantae
38. Which of the following is NOT a part of the "rotator cuff" musculature?
A. Subscapularis
B. Teres Minor
C. Teres Major
D. Infraspinatus
39. The muscles which insert on the proximal, medial aspect of the tibia forming the area known as the pes anserinus are the sartorius, gracilis and $\qquad$ _.
A. Semitendinosus
B. Semimembranosus
C. Biceps femoris
D. Popliteus
40. A weakness in this muscle allows for the chronic dislocation tendency of the patella.
A. Rectus femoris
B. Vastus intermedius
C. Articularis genus
D. Vastus lateralis
41. The triceps surae consists of all of the following muscles $\boldsymbol{E X C E P T}$ :
A. Soleus
B. Medial head of the gastrocnemius
C. Lateral head of the gastrocnemius
D. All three of the above
42. Which of the following muscles is NOT considered a medial thigh muscle?
A. Adductor brevis
B. Gracilis
C. Adductor magnus
D. Obturator externus
43. Which of the following statements does NOT apply when defining the gracilis muscle?
A. Originates from the body and the inferior ramus of the ischium
B. Inserts into the medial aspect of the tibia at its proximal aspect
C. Its major function is to adduct the hip joint
D. It is innervated by the anterior (superficial) branch of the obturator nerve
44. Complete the following statement. The peroneus (fibularis) brevis muscle $\qquad$ .
A. originates from the interosseous membrane
B. arises from the head of the fibula just inferior to the knee joint
C. inserts into the base of the fifth metatarsal at its dorsal tubersity
D. inserts into the medial cuneiform and fifth metatarsal bones
45. Adductor hallucis muscle
A. Its transverse head originates from the all of the cuneiform bones
B. Inserts into the mid phalanx of the great toe
C. It is innervated by the medial plantar nerve of the posterior tibial nerve
D. Its oblique head arises from the base of the second to fourth metatarsal bones
46. The posterior interventricular sulcus lodges the
A. Great cardiac vein
B. Small cardiac vein
C. Coronary sinus
D. Middle cardiac vein
47. Which of the following artery is a branch of the right coronary artery?
A. Anterior interventricular
B. Posterior interventricular
C. Circumflex
D. Marginal branch to the left ventricle
48. The tributaries of the coronary sinus include all of the following veins EXCEPT:
A. Great cardiac
B. Small cardiac
C. Middle cardiac
D. Anterior cardiac
49. Which of the following statements about the coronary sulcus is NOT CORRECT?
A. On the back of the heart, lodges the coronary sinus
B. It separates the right atrium from the left atrium
C. It houses the right coronary artery
D. It lodges the circumflex artery
50. The Oblique sinus of the heart is located at the:
A. Posterior to the base of the heart
B. Just superior to the pulmonary arteries
C. Anterior to the right border of the heart
D. Just anterior to the apex of the heart
51. Which of the aortic valves is a non coronary valve?
A. Right
B. Posterior
C. Left
D. Anterior
52. Parasympathetic stimulation of the heart will result in all of the following EXCEPT the:
A. Increase the volume displacement by the heart
B. Decrease the force of contraction of the heart
C. Decrease the heart rate
D. Dilate of the coronary blood vessels
53. During your examination of the heart and its pericardial sac, you inserted a finger through its transverse sinus. At this point you notice the position of the great blood vessels of the heart. Which of the following statement describes your finding CORRECTLY?
A. The aorta and the pulmonary veins are located just anterior to your finger
B. The aorta and the superior vena cava are located just posterior to your finger
C. The pulmonary artery is only structure that is anterior to your finger
D. Your finger is limited inferiorly via the inferior vena cava
54. Where would you locate the sternopericardial ligaments of the fibrous
pericardium?
A. Superior mediastinum
B. Middle mediastinum
C. Superior and anterior mediastinum
D. Anterior mediastinum
55. If there were musculi pectinati associated with the left atrium of the heart where would you most likely locate them?
A. On the atrial septal wall
B. In the auricle
C. Surrounding the pulmonary vein orifices
D. Adjacent the mitral valve
56. The atrioventricular node is located in which of the following areas?
A. At the right atrial septal wall immediately above the openings of the coronary sinus
B. At the cephalic end of the sulcus terminalis
C. In the right fibrous trigone
D. In the septum membranaceum
57. The ligamentum arteriosum
A. Lies inside the pericardium
B. Is an open duct in the adult
C. Passes from the right pulmonary artery to the aorta
D. Passes from the left pulmonary artery to the aortic arch
58. The coronary sulcus of the heart
A. Separates the atrium from the ventricle
B. Lodges the right coronary artery
C. Separates the right and left ventricles
D. All of these
59. In the study of the lungs, it was noted that:
A. In the right lung, its hilum (root) that the pulmonary veins are located anterior and inferiorly.
B. The superior lobe of the right lung presents a projection known as the lingula
C. In the left lung, just superior to its hilum (root) you may locate the azygous vein groove
D. In the hilum (root) of the left lung, the bronchus is a most anterior structure
60. The base of the lungs, refers to the:
A. Apex
B. Costal surface
C. Diaphragmatic surface
D. Mediastinal surface
61. A bronchopulmonary segment
A. Is a major lobe of the lung
B. Is a primary bronchus and the portion of lung it supplies
C. Is a secondary bronchus and the portion of the lung it supplies
D. Is a tertiary bronchus and the portion of the lung it supplies
62. The visceral pleura
A. Exhibits a costal pleura
B. Exhibits a diaphragmatic pleura
C. Exhibits a mediastinal pleura
D. Intimately invests the lungs
63. In the thorax, the trachea divides into right and left bronchi,
A. Just anterior to the arch of aorta
B. At the level of the sternal angel
C. At the right bronchi, right vegal nerve gives rise to the right recurrent laryngeal nerve
D. Esophagus is located anterior to tracheal division
64. All of the following characters are associated with the left lung EXCEPT the:
A. A well-marked depression above the hilum produced by the arch of aorta
B. Deep cardiac notch
C. Esophageal area just posterior to its pulmonary ligament
D. A well-marked depression at its apex produced by the superior vena cava
65. The trachea divides into the right and left bronchi at the level of:
A. Jugular notch
B. Sternal angle
C. Xiphosternal junction
D. Sternoclavicular joint
66. The boundaries of the perineum include all of the following, EXCEPT:
A. The pubic arch
B. The ischial tuberosities
C. Sacrotuberous ligaments
D. Sacropinous ligaments
67. This surface of the urinary bladder is also known as the base:
A. Superior surface
B. Inferior surface
C. Anterior surface
D. Posterior surface
68. The trigone, of what mucous membrane is firmly attached, is found at this wall (surface) of the urinary bladder:
A. Superior surface
B. Inferior surface
C. Anterior surface
D. Posterior surface
69. The pelvic brim is formed by all of the following, $\boldsymbol{E X C P E T}$ :
A. Pubic symphysis
B. Pubic crest
C. Pectineal line of $S_{1}$
D. Acute line of ilium
70. Which of the following forms the cremaster muscle of the spermatic cord?
A. External oblique muscle
B. Transverse abdominis fascia
C. Pyramidalis muscle
D. Internal oblique muscle
71. Which of the following statements is NOT correct?
A. The right kidney is located lower than the left
B. Iliohypogastric and ilioinguinal nerves are often united by a common trunk
C. The obturator nerve descends on the medial border of the psoas muscle into the pelvic cavity
D. The right gonadal vein drains into the right renal vein
72. The ejaculatory duct, is located within the:
A. Prostate gland
B. Urinary bladder
C. Seminal vesicle
D. Membranous urethra
73. Which of the following bones of the skull is closely associated with the pituitary?
A. Frontal bone
B. Ethmoid bone
C. Temporal bone
D. Sphenoid bone

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74. Which fascia wraps around the thyroid gland, trachea, and esophagus, and can possibly be a plane of infection spread into the anterior and posterior mediastinum?
A. The superficial fascia of the neck
B. The prevertebral fascia of the neck
C. The investing fascia of the neck
D. None above fits the stated profile
75. Which fact concerning the left suprarenal gland is not correct?
A. The left middle suprarenal artery comes directly from the abdominal aorta
B. The normal shape will be semilunar
C. The celiac plexus and the thoracic splanchnic nerves provide innervation
D. It makes up part of the stomach bed
76. Which of the following structures is related to the left kidney?
A. Pancreas
B. Spleen
C. Diaphragm
D. Hepatic flexure of colon
77. The fetal right atrium is mainly derived from the:
A. primordial pulmonary vein
B. right pulmonary vein
C. primordial atrium
D. sinus venosus
78. Tertiary bronchi define:
A. the left and right lung
B. the lobes of each lung
C. bronchopulmonary segments of each lung
D. none of the above
79. Which of the following matched area and anatomical term is incorrect?
A. hindgut - inferior mesenteric artery
B. foregut - celiac trunk
C. midgut - superior mesenteric artery
D. all of the above are correct
80. The ureteric bud is derived from $\qquad$ mesoderm.
A. paraxial
B. splanchnic
C. somatic
D. intermediate
81. Skeletal muscle develops from:
A. paraxial mesoderm
B. somatic mesoderm
C. intermediate mesoderm
D. all of the above
82. The thyroid gland is derived from arch:
A. one
B. two
C. three
D. none of the above
83. Which of the following develop by intramembranous ossification?
A. ulna
B. tibia
C. phalanges
D. none of the above
84. The skin is an important organ for
A. water-proofing
B. mechanical protection
C. thermoregulation
D. A, B, and C
85. Osteons are found in
A. compact bone
B. trabecular bone
C. both
D. neither
86. Sarcoplasmic reticulum is a characteristic of $\qquad$ muscle.
A. skeletal
B. cardiac
C. smooth
D. A and B
87. The process of neutrophil pulling in a bacteria cell is called
A. diapedesis
B. endocytosis
C. margination
D. phagocytosis
88. Cholecystokinin stimulates secretion by the $\qquad$ of the pancreas.
A. exocrine secretory cells
B. endocrine cells
C. duct cells
D. B and C
89. As air is conducted along the conducting passages of the respiratory tract, it is
A. cleaned
B. moistened
C. warmed
D. all of the above
90. The macula densa is found in the wall of the
A. proximal convoluted tubule
B. distal convoluted tubule
C. afferent arteriole
D. efferent arteriole
91. Antiduretic hormone is produced by $\qquad$ cells.
A. chromaffin
B. acidophils
C. basophils
D. neurosecretory
92. Of the following vertebra which one is opposite the hyoid bone?
A. $\mathrm{C}-2$
B. $\mathrm{C}-3$
C. $\mathrm{C}-4$
D. $\mathrm{C}-5$
93. In athletic injury of the shoulder which structure receives the injury known as a "shoulder separation"?
A. Acromioclavicular ligament and capsule
B. Sternoclavicular ligament
C. Interclavicular ligament
D. Costoclavicular ligament
94. The thorax provides points of attachment for muscles of all these groups except:
A. Respiratory movements
B. Pelvic girdle
C. Abdomen
D. Arm
95. Which of the following muscles has an attachment to the femur bone?
A. Coccyygeus muscle
B. Quadratus lumborum muscle
C. Psoas minor muscle
D. Psoas major muscle
96. Reflections of the epicardium along the great vessels and into the fibrous pericardial sac is known as the:
A. Phreniopericardial ligament
B. Epicardium
C. Mesocardium
D. Myocardium
97. Name the small pouches of peritoneum filled with fat along the colon.
A. Appendices vermiformis
B. Epiploon
C. Appendices epiploicae
D. Foramen epiploicum
98. The superior pole of the right kidney reaches about the level of which rib?
A. $9^{\text {th }}$ rib
B. $10^{\text {th }}$ rib
C. $11^{\text {th }}$ rib
D. $12^{\text {th }}$ rib
99. The cremasteric fascia is an areolar sheet of aponeurosis continuous with the:
A. Parietal peritoneum
B. External oblique muscle
C. Internal oblique muscle
D. Transversus abdominis muscle
100. The lobe of the liver which is bounded on the left by umbilical fissure and on the right by the gall bladder fissure is?
A. Caudate lobe
B. Right lobe
C. Left lobe
D. Quadrate lobe
101. Which of the following is not part of the right atrium?
A. Sinus venarum
B. Fossa ovalis
C. Musculi pectinati
D. Conus arteriosus
102. What does the medial umbilical fold contain?
A. Round ligament of the uterus
B. Urachus
C. Umbilical artery
D. Umbilical vein
103. Which of the following hormones is secreted by the anterior pituitary (adenohypophysis)?
A. Aldosterone
B. Thyroid stimulating
C. Thyroxin
D. Antidiuretic
104. Identity the ligament that does not form part of the ankle joint:
A. Anterior talofibular
B. Calcaneofibular
C. Oblique popliteal
D. Deltoid
105. The medial malleolus is part of the:
A. Talus
B. Tibia
C. Fibula
D. Calcaneous
106. Which of the following series of bones each presents a styloid process?
A. Femur, pterygoid, \& sternum
B. Temporal, radius \& ulna
C. Humerus, mandible \& tibia
D. Os coxae \& calcaneocalcarine
107. Identify the ligament that is not a peritoneal attachment to the liver:
A. Falciform
B. Round
C. Cruciate
D. Coronary
108. The pulmonary veins convey blood from:
A. Liver to the heart
B. Lungs to the left atrium
C. Lungs to the right atrium
D. One lung to the other
109. Identify the gland which is important in the development of immunity.
A. Adrenal medulla
B. Pineal
C. Thymus
D. Thyroid
110. The substance of the lungs is nourished by blood carried by the:
A. Pleural arteries
B. Pulmonary arteries
C. Bronchial arteries
D. Brachial arteries

| NB |  | 38. | C | 84. | D |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B BOARD | 39. | A | 85. | A |
|  | TIONS | 40. | A | 86. | D |
|  | RAL ANATOMY | 41. | D | 87. | D |
|  | er Key | 42. | D | 88. | A |
|  |  | 43. | A | 89. | D |
|  |  | 44. | B | 90. | B |
|  |  | 45. | B | 91. | D |
|  |  | 46. | A | 92. | B |
| 1. | A | 47. | B | 93. | A |
| 2. | A | 48. | D | 94. | B |
| 3. | D | 49. | B | 95. | D |
| 4. | C | 50. | A | 96. | C |
| 5. | B | 51. | D | 97. | C |
| 6. | D | 52. | B | 98. | D |
| 7. | D | 53. | C | 99. | C |
| 8. | B | 54. | D | 100. | D |
| 9. | B | 55. | B | 101. | D |
| 10. | B | 56. | D | 102. | C |
| 11. | A | 57. | D | 103. | B |
| 12. | D | 58. | A | 104. | C |
| 13. | B | 59. | A | 105. | B |
| 14. | C | 60. | C | 106. | B |
| 15. | B | 61. | A | 107. | C |
| 16. | D | 62. | D | 108. | B |
| 17. | B | 63. | B | 109. | C |
| 18. | D | 64. | D | 110. | C |
| 19. | D | 65. | B |  |  |
| 20. | A | 66. | D |  |  |
| 21. | D | 67. | A |  |  |
| 22. | A | 68. | B |  |  |
| 23. | B | 69. | C |  |  |
| 24. | C | 70. | D |  |  |
| 25. | C | 71. | D |  |  |
| 26. | A | 72. | A |  |  |
| 27. | B | 73. | D |  |  |
| 28. | A | 74. | D |  |  |
| 29. | D | 75. | A |  |  |
| 30. | B | 76. | D |  |  |
| 31. | D | 77. | D |  |  |
| 32. | C | 78. | C |  |  |
| 33. | C | 79. | D |  |  |
| 34. | D | 80. | D |  |  |
| 35. | A | 81. | A |  |  |
| 36. | A | 82. | D |  |  |
| 37. | A | 83. | D |  |  |

