1. The anterior fontanelle is between what two bones?
   a. frontal and temporal
   b. ethmoid and zygomatic
   c. sphenoid and frontal
   d. parietal and frontal

2. Capillaries are lined with
   a. cubodial endothelial cells
   b. squamous endothelial cells
   c. columnar cells
   d. collagenous fibers

3. The external iliac becomes the femoral artery at the level of the
   a. 4th lumbar vertebra
   b. sacroiliac joint
   c. inguinal ligament
   d. pubic tubercle

4. Which is not a bony attachment of the trapezius?
   a. humerus
   b. scapula
   c. clavicle
   d. occipital bone

5. Phlebitis is a condition concerned with
   a. plaques in the arteries
   b. inflammation of venous valves
   c. inflammation of the tunica intima in veins and blood clotting and is very painful
   d. inflammation in arteries

6. The renal and gonadal arteries come off the abdominal aorta between the
   a. superior mesenteric and esophageal
   b. superior mesenteric and inferior mesenteric
   c. common iliac and inferior mesenteric
   d. common iliac and internal iliac
7. The tibia and fibula both articulate with the 
   a. calcaneus  
   b. talus  
   c. first metatarsal  
   d. femur

8. Which vessel(s) carries(y) oxygenated blood? 
   a. pulmonary artery  
   b. pulmonary veins  
   c. superior vena cava  
   d. internal jugular vein

9. Hemopoietic tissue forms  
   a. only erythrocytes  
   b. only leukocytes  
   c. both a and b  
   d. only platelets

10. Which of the following is incorrect? 
    a. the apex of the heart is in the 5th intercostal space  
    b. the heart is the size of the spleen  
    c. the heart is 2/3 to the right of the midline  
    d. the base is inferior to the sternal angle

11. Which is not correct in the pelvic floor? 
    a. the anus is between the coccyx and the median raphe  
    b. the vagina is posterior to the urethra  
    c. the urethra is between the vagina and the pubic bone  
    d. the levator ani muscle originates from the ischium and the pubic bone

12. The vagus nerve provides  
    a. sympathetic input to the heart  
    b. increased speed to the heart beat  
    c. the coronary sinus with innervation  
    d. parasympathetic input to the heart which slows the beat

13. The mastoid process is a projection behind the ear and connects to the 
    a. nasal cavity  
    b. middle ear  
    c. posterior orbit  
    d. maxillary sinus
14. Two muscles which close the jaw are the
   a. buccinator and temporalis
   b. masseter and zygomaticus
   c. temporalis and masseter
   d. oricularis oris and buccinator

15. The pericardial cavity is
   a. lined with mesothelial cells and filled with fluid
   b. contains platelets to prevent clotting
   c. is surrounded with cuboidal cell linings
   d. is continuous with the right atrium

16. Which is not a function of the external oblique?
   a. aids in breathing
   b. aids in defecating
   c. helps to support the floor of the pelvic cavity
   d. aids in child birth

17. Which combination is true?
   a. the auricle and the atrium are the same structure
   b. the foramen ovale was formerly the fossa ovale
   c. the pectinate muscles are the same as the trabeculae carneae
   d. the pulmonary trunk and the pulmonary arteries both carry venous blood

18. Which is correct?
   a. endocardium consists of two layers of endothelial cells
   b. endocardium is sometimes called visceral endocardium
   c. endocardium is continuous with epithelial cells in the blood vessels
   d. epicardium and endocardium are synonymous

19. Which does not apply to the frontalis muscle?
   a. connects to the galea aponeurotica
   b. raises the eyebrows
   c. has no bony attachment
   d. raises the eyelids

20. Which is not correct?
   a. the interanl carotid artery terminates in the middle cerebral artery
   b. the anterior cerebral artery supplies Broca's area
   c. the internal carotids supply 75% of the blood to the brain
   d. the vertebals supply 25% of the blood to the brain
21. Which is not part of the appendicular skeleton?
- a. scapula
- b. clavicle
- c. pubic bone
- d. sternum

22. Which muscle closes the eyelid?
- a. orbicularis oris
- b. orbicularis oculi
- c. levator palpebrae
- d. buccinator

23. The parietal layer of the pericardium is
- a. adherent to the visceral layer
- b. adherent to the outer, thick fibrous layer
- c. consists only of tough fibers
- d. is also called the epicardium

24. Which is incorrect?
- a. kyphosis is accentuation of the thoracic curve
- b. lordosis is accentuation of cervical curve
- c. scoliosis is lateral deviation of the vertebral column
- d. lordosis is accentuation of the lumbar curve

25. The lub component of the heart beat means the
- a. closure of all the semilunar valves
- b. opening of the bicuspid valve
- c. opening of the tricuspid valve
- d. closure of the bicuspid and tricuspid valves

26. The roof of the orbit is made up of which bone?
- a. ethmoid
- b. sphenoid
- c. maxilla
- d. frontal

27. The orbicularis oris inserts on the
- a. squamous portion of the temporal bone
- b. contralateral side of the cheek
- c. contralateral side of the mouth
- d. same side of the mouth as the buccinator
28. The aponeurosis of the external oblique is not involved with
   a. inguinal ligament
   b. superficial ring of the inguinal canal
   c. iliac spine
   d. mediastinum

29. The pectoralis major does not originate on the
   a. clavicle
   b. sternum
   c. humerus
   d. costal cartilages

30. Which is correct? Purkinje fibers
   a. form the conduction mechanism of the heart
   b. form the AV node
   c. do not form the bundle of His
   d. line the tricuspid valve

31. Which is not correct about the rectus abdominis?
   a. originates on the pubic bone and symphysis
   b. flexes the vertebral column
   c. is surrounded by three layers of aponeurosis both superior and inferior to the umbilicus
   d. inserts on the xiphoid process as well as on the 5, 6 and 7 costal cartilages

32. The straight sinus connects the ________ with the superior longitudinal sinus
   a. cavernous sinus
   b. transverse sinus
   c. inferior longitudinal sinus
   d. sigmoid sinus

33. Which is not an elastic artery?
   a. brachiocephalic
   b. subclavian
   c. common carotid
   d. brachial

34. All facial bones articulate with the maxilla except the
   a. ethmoid
   b. sphenoid
   c. zygomatic
   d. mandible
35. Endarterectomy is a procedure:
   a. scraping off plaques from the tunica adventitia of the common carotid arteries
   b. commonly used in muscular arteries
   c. only used in coronary arteries
   d. used to scrape off plaques from the tunica intima in the common carotid arteries

36. Which is not correct regarding the triceps?
   a. inserts on the radial tuberosity
   b. powerful extensor of the forearm
   c. originates on the infraglenoid tubercle process of the scapula
   d. originates on the humerus

37. The pace maker is in the:
   a. left atrium
   b. right atrium
   c. coronary sinus
   d. venous sinus

38. The entire body is made of four (4) major kinds of tissues. Which one is not correct?
   a. nervous
   b. connective
   c. capillaries
   d. epithelial

39. During diastole which is correct?
   a. the AV valves are open
   b. the AV valves are closed
   c. the semilunar valves are open
   d. the mitral (bicuspid) valve is closed

40. The matrix of bone is called ________________ and is resilient because it has fibers.
   a. hydroxyapatite $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$
   b. hydorxyapatite
   c. osteoapatite
   d. hydroxyapatite $\text{Ca}_6(\text{PO}_4)_2(\text{OH})_{10}$

41. Which of the following constitutes the linea alba?
   a. aponeurosis
   b. deep inguinal ring
   c. round ligament
   d. anterior iliac spine
42. Atherosclerosis
   a. begins in the tunica media
   b. in coronary arteries causes one third of the deaths in America
   c. never occurs at bifurcations of arteries
   d. cannot be reduced in coronary arteries with the procedure called angioplasty

43. Since the latissimus dorsi inserts on the intertubercular groove of the humerus, it does not function to:
   a. medial rotate the humerus
   b. adduct the arm
   c. draw shoulder down and back
   d. raise the arm

44. Venous blood from the brain runs in ______ to reach the internal jugular vein
   a. veins
   b. capillaries
   c. dural venous sinuses
   d. smooth muscle channels

45. The sella turcica which surrounds most of the pituitary gland is part of what bone?
   a. ethmoid
   b. sphenoid
   c. maxilla
   d. palatine

46. Which of the following is not an identifying characteristic of bone?
   a. fossa
   b. foramen
   c. pseudounipolar
   d. trochanter

47. Heart valves are made of
   a. enthocardium and smooth muscle
   b. endocardium and connective tissue
   c. epicardium and connective tissue
   d. myocardium and epicardium

48. Neutrophils
   a. have one large nucleus
   b. produce antibodies
   c. are smaller than lymphocytes
   d. enter infected areas and destroy bacteria by phagocytosis
49. Which bone is not part of the "cheek bone?"
   a. zygomatic process of the temporal
   b. zygomatic process of the mandible
   c. zygomatic bone
   d. zygomatic process of the maxillary bone

50. After a fracture of the humerus, which of the following is not part of the healing process?
   a. blood clot forms between two sides of the fracture
   b. periosteal fibroblasts form osteoclasts
   c. a bony collar forms
   d. a callus has some bony fragments

A CLIMBER'S CREED: THE GREATEST REWARDS COME FROM THE GREATEST COMMITMENTS