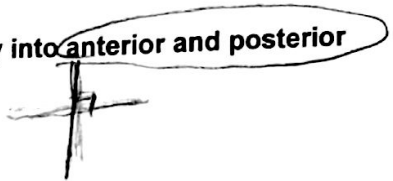


Hand → only example = tooth in bony socket

- ✓ 1. A fibrous joint that is a peg-in-socket is called a joint.
A. syndesmosis
B. suture
C. synchondrosis
D. gomphosis
2. A joint united by dense fibrocartilaginous tissue that usually permits a slight degree of movement is a
A. suture
B. syndesmosis → very limited movement
C. symphysis eg: pubic symphysis, intervertebral joints
D. gomphosis
3. Saddle joints have concave and convex surfaces. Name the two bones of the hand that articulate to form a saddle joint.
A. The scaphoid of the index finger and the triquetrum of the middle finger.
B. The trapezium of the ring finger and the capitate of the fourth finger.
C. The scaphoid of the middle finger and the lunate of the index finger.
D. The trapezium of the carpal bone and the thumb's metacarpal.
- ✓ 4. The plane that runs at right angles to the sagittal plane, dividing the body into anterior and posterior regions is a:
A. midsagittal plane
B. transverse plane
C. frontal plane
D. parasagittal plane
5. What structure separates the abdominopelvic and thoracic cavities?
A. The pericardial cavity
B. The diaphragm
C. The mediastinum
D. There is no separation between these cavities
6. Which of the following statements is/are TRUE?
A. The colour of skin is due primarily to a pigment named keratin.
B. The outermost layers of epidermis are composed of dead cells.
C. Both the epidermis and the dermis contain blood vessels (are vascularized tissues).
D. Hairs are noncellular structures composed entirely of nonliving substances secreted by follicle cells.
E. B) and D)
7. Which structure is NOT associated with a hair?
A. shaft
B. cortex
C. eponychium
D. matrix
E. cuticle
8. In thick skin, the order of the cells of the epidermis, from DEEP to SUPERFICIAL, are:
A. stratum corneum, stratum lucidum, stratum spinosum, stratum granulosum, stratum basale
B. stratum corneum, stratum spinosum, stratum lucidum, stratum granulosum, stratum basale
C. stratum basale, stratum spinosum, stratum granulosum, stratum lucidum, stratum corneum
D. stratum granulosum, stratum basale, stratum lucidum, stratum spinosum, stratum corneum
E. stratum basale, stratum corneum, stratum spinosum, stratum lucidum, stratum granulosum
9. In addition to protection (physical and chemical barrier), the skin serves other functions. Which of the following is another vital function of the skin?
A. It is involved in the conversion of cholesterol to vitamin D.
B. It aids in the transport of materials throughout the body.
C. The cells of the epidermis store glucose as glycogen for energy.
D. It absorbs vitamin C so that the skin will not be subject to diseases.



B S G L C

10. Which of the following statements is/are TRUE regarding the DERMIS?

- A. It is vascularized ✓
- B. It is made mostly of squamous epithelial tissue ✗
- C. It is composed mostly of areolar connective tissue -
- D. Both A) and B) are correct
- E. Both A) and C) are correct ✓

11. Which of the following statements is TRUE?

- A. Regardless of race, all human beings have about the same number of melanocytes.
- B. The epidermis composes the thickest portion of the skin.
- C. Melanocytes are found in the deepest layer of the dermis. ✗
- D. When a patient is said to have "third degree burns", this indicates that the patient has burns that cover approximately one-third of the body.

12. Which muscles attached to the hair follicles cause "goose bumps"?

- A. arrector integument
- B. arrector pili
- C. levator folliculi
- D. arrector folliculi

13. Within the dermis, lines that indicate areas of separation between bundles of collagen fibers and that are important to surgeons when making a cut through the body wall are called:

- A. striae
- B. cleavage or tension lines
- C. dermal ridges
- D. flexure lines
- E. dermal papillae

14. Which of the following statements is TRUE?

- A. Osteoblasts deposit bone while osteocytes resorb bone. ✓
- B. Perichondrium covers the surface of long bones.
- C. Blood vessels are found in bone but not in cartilage.
- D. Bones that do not fit into any category are classified as miscellaneous bones.
- E. The hallux is an irregular bone.

15. Which of the following is NOT a carpal bone?

- A. capitate
- B. triquetral
- C. lunate ✓
- D. pisiform ✓
- E. talus

16. In the human skull, which of the following bones is unpaired?

- A. Nasal
- B. Parietal ✓
- C. Maxilla
- D. Ethmoid
- E. Temporal

17. The superior nasal concha is part of which bone?

- A. nasal
- B. ethmoid
- C. vomer
- D. sphenoid
- E. maxilla

18. Which of the following bones is NOT weight-bearing?

- A. talus
- B. femur
- C. fibula
- D. tibia

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19. Your anatomy instructor asks you to locate the lateral malleolus. What bone will you pick up?

- A. calcaneous
- B. ulna
- C. fibula
- D. tibia
- E. radius

20. The hard palate is composed of contributions from the & bones?

- A. ethmoid, palatine
- B. maxillary, sphenoid
- C. ethmoid, sphenoid
- D. palatine, maxillary
- E. sphenoid, palatine

21. You have a cervical vertebra in your hand. What feature is present that is NOT present on the other vertebrae?

- A. transverse foramina
- B. facets
- C. body
- D. spinous process
- E. pedicles

22. The parietal bone is an example of a bone.

- A. long
- B. short
- C. flat
- D. irregular
- E. sesamoid

23. In the epiphyseal plate, cartilage grows:

- A. from the diaphysis to the epiphysis
- B. from the epiphysis to the diaphysis *epi → diap*
- C. from the edges inward
- D. in a circular fashion

24. The suture that connects the parietal bone with the frontal bone is the suture.

- A. sagittal
- B. coronal
- C. squamous
- D. lambdoid

25. The structure that separates the condylar and coronoid processes of the mandible is the:

- A. mandibular ramus
- B. mandibular angle
- C. styloid process
- D. mandibular notch
- E. mandibular canal

26. Which of the following statements is/are TRUE?

- A. Ribs numbered 11 and 12 are true ribs because they have no anterior attachments.
- B. The most common site of fracture in the humerus is the anatomical neck.
- C. In anatomical position, the lateral forearm bone is the ulna.
- D. Each vertebral disc possesses a nucleus pulposus and an annulus fibrosus.
- E. C) and D)

27. The prominent bulge just posterior and inferior to the external auditory meatus that anatomy students can feel on their own bodies is the:

- A. maxillary bone
- B. lacrimal bone
- C. occipital condyle
- D. mastoid process
- E. external occipital protuberance

28. The meatus can best be described as a:

- A. large bony prominence
- B. a tubelike opening or channel
- C. a shallow groove
- D. a raised, rough area

29. The greater trochanter is a bony landmark of the:

- A. femur
- B. tibia
- C. pubis
- D. ramus
- E. ulna

30. Which of the following statements is FALSE?

- A. The true name for cheekbones is zygomatic bones. ✓
- B. There are seven cervical, twelve thoracic and five lumbar vertebrae. ✓
- C. Costal cartilages join the ribs to the sternum. ✓
- D. In anatomical position, the lateral bone is the ulna. ✓
- E. The vertebral column is held in place primarily by the anterior and posterior longitudinal ligaments.

31. Locking of the process prevents hyperextension of the elbow.

- A. olecranon
- B. glenoid
- C. coronoid
- D. styloid
- E. deltoid

32. Endosteum is in all of these places EXCEPT:

- A. around the exterior of the femur
- B. on the trabeculae of spongy bone
- C. lining the central canal of an osteon
- D. often directly touching the bone marrow

33. Each of the following bones contributes to the formation of the orbit EXCEPT the:

- A. lacrimal bone
- B. nasal bone
- C. frontal bone
- D. sphenoid bone
- E. palatine bone

34. The clavicle articulates with the scapula at the:

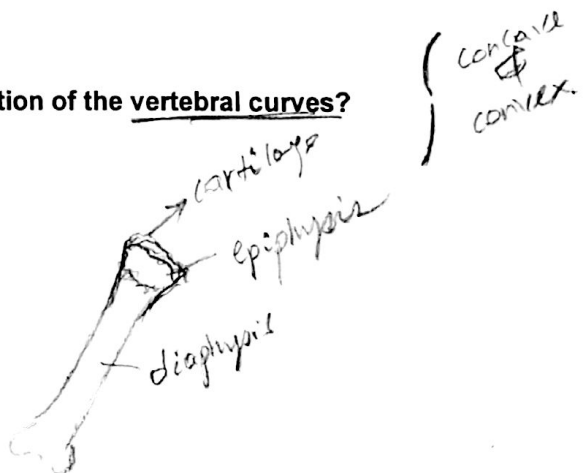
- A. acromion process
- B. coracoid process
- C. glenoid tuberosity
- D. scapular spine
- E. subscapular fossa

35. Which of the following phrases best describes the function of the vertebral curves?

- A. to provide resilience and flexibility
- B. to accommodate muscle attachment
- C. to improve cervical center of gravity
- D. to accommodate the weight of the pelvic girdle

36. In the epiphyseal plate, cartilage grows _____.

- A. by pulling the diaphysis toward the epiphysis
- B. by pushing the epiphysis away from the diaphysis
- C. from the edges inward
- D. in a circular fashion



Capitulum = humerus
Clavicular notch

acromion
scapula

acromion
scapula

petrygoid = sphenoid
coronoid = mandible
glabella - frontal
bone

37. Which of the following glands or organs produces hormones that tend to increase blood calcium levels?

- A. pineal
- B. thyroid
- C. parathyroid
- D. spleen

38. The small spaces in bone tissue that are holes in which osteocytes live are called:

- A. lacunae
- B. Volkmann's canals
- C. Haversian canals
- D. trabeculae
- E. sinuses

39. Hallux is another name for the:

- A. thumb
- B. 3rd cervical vertebra
- C. terminal portion of the sternum
- D. big toe
- E. horseshoe-shaped bone found just under the chin

40. The paired L-shaped bones that contribute to the hard palate are the bones.

- A. ethmoid
- B. sphenoid
- C. palatine
- D. buccal
- E. parietal

41. The ethmoid bone is composed of all of the following EXCEPT the:

- A. superior nasal concha
- B. crista galli
- C. cribriform plate
- D. inferior nasal concha

42. The term eversion is applied only to movement of the:

- A. knee
- B. vertebral column
- C. wrist
- D. elbow
- E. ankle

43. All of the following influence joint stability EXCEPT:

- A. shape of articulating surfaces
- B. bone density
- C. muscle tone
- D. degree of ligament stretch

44. Pulling the tongue back into the mouth after sticking it out is called:

- A. rotation
- B. inversion
- C. supination
- D. retraction
- E. protraction

11/13



1. Neurons can be classified structurally by the number of processes extending from their cell body. Which is the most common neuron type in humans?
 - A. tripolar
 - B. bipolar
 - C. unipolar
 - D. all neurons have the same number of processes
 - E. multipolar

2. To produce horizontal wrinkles in the forehead, which of the following muscles is involved?
 - A. medial pterygoid
 - B. zygomaticus
 - C. frontalis
 - D. temporalis

3. In flexing the forearm at the elbow, the:
 - A. biceps brachii and brachialis act as prime movers
 - B. triceps brachii acts as antagonist
 - C. brachioradialis acts as antagonist
 - D. a) and b)

4. Which of the following is NOT associated with the deltoid muscle?
 - A. prime mover of arm flexion
 - B. prime mover of arm abduction ✓
 - C. swinging arm movements when walking ✓
 - D. common site for IM injection ✓
 - E. permits lateral & medial arm rotations if only some fibers used ✓

5. The "smiling" muscle is the:
 - A. orbicularis orbis
 - B. mentalis
 - C. zygomaticus
 - D. buccinator
 - E. none of the above

6. The pectoralis major muscle:
 - A. abducts the humerus
 - B. adducts the humerus
 - C. retracts the scapula
 - D. protracts the scapula
 - E. rotates the radius

7. A nursing infant develops a powerful sucking muscle that adults also use for whistling called the:
 - A. platysma
 - B. masseter
 - C. zygomaticus
 - D. buccinator

8. When the term biceps, triceps or quadriceps forms part of a muscle's name, you can assume that:
 - A. the muscle has two, three, or four origins, respectively.
 - B. the muscle is able to change direction twice, three times, or four times faster than other muscles, respectively.
 - C. the muscle has two, three, or four functions, respectively.
 - D. the muscle has two, three, or four insertions, respectively.
 - E. the muscle is composed of two, three or four fascicles, respectively.

9. Which of the following muscles would NOT influence lip movement?

- A. zygomaticus
- B. mentalis
- C. orbicularis oculi
- D. buccinator
- E. all of the above would influence lip movement

10. Which of the following is NOT a member of the hamstrings?

- A. gracilis
- B. semitendinosus
- C. semimembranosus
- D. biceps femoris

11. Which of the following muscles is NOT a part of the quadriceps femoris?

- A. rectus femoris
- B. biceps femoris
- C. vastus medialis
- D. vastus lateralis
- E. vastus intermedius

12. The muscles that flex the leg and extend the thigh:

- A. are found in the posterior compartment of the thigh
- B. include the semimembranosus and the semitendinosus
- C. are collectively called the hamstrings
- D. A) and B) are correct
- E. A), B) and C) are correct

13. Which of the following statements is TRUE?

- A. The "bi" in biceps refers to the number of insertions that a muscle has.
- B. The chewing muscle covering the ramus of the mandible is the buccinator.
- C. A prime mover of the arm that acts in adduction would be the deltoid muscle.
- D. The calcaneal tendon is the common insertion tendon for the gastrocnemius and soleus muscles.
- E. During inspiration, the first rib is fixed in place by the splenius muscle.

14. The names of muscles often indicate the action of the muscle. What does the term *levator* mean?

- A. The muscle flexes and rotates a region.
- B. The muscle is a fixator and stabilizes a bone or joint.
- C. The muscle elevates a region.
- D. The muscle functions as a synergist.

15. Tennis players often complain about pain in the arm (forearm) that swings the racquet. What muscle is usually strained under these conditions?

- A. the triceps brachii
- B. the anconeus
- C. the brachioradialis
- D. the flexor digitorum profundus

16. What do genioglossus, hyoglossus and styloglossus have in common?

- A. All names indicate the relative size of the muscle.
- B. All names reflect direction of muscle fibers.
- C. Each acts synergistically to elevate the jaw.
- D. All act on the tongue.

? 17. Which of the following is paired correctly?

- A. deltoid muscle // prime mover of arm abduction ✓
- B. erector spinae // prime mover of head flexion ✗
- C. commissural fibers // link areas WITHIN a cerebral hemisphere ✓
- D. adductor magnus muscle // lateral compartment of the thigh ✗
- E. biceps brachii // antagonist during arm flexion ✗

A

X

18. Ciliated CNS neuroglia that play an active role in moving the cerebrospinal fluid are:

- A. ependymal cells
- B. Schwann cells
- C. oligodendrocytes
- D. astrocytes
- E. microglia

19. Loss of the ability to perform skilled motor activities such as piano playing, with no paralysis or weakness in specific muscles, might suggest damage to the:

- A. spinal cord
- B. premotor cortex
- C. primary motor cortex
- D. Broca's area

B

~~X~~

20. The subarachnoid space lies between what two layers of meninges?

- A. arachnoid mater and pia mater
- B. arachnoid mater and dura mater
- C. dura mater and epidura mater
- D. arachnoid mater and epidura mater

21. The hypothalamus:

- A. is the thermostat of the body since it regulates temperature
- B. contains feeding and hunger centres
- C. contains neurons sensitive to the hydration level of the blood
- D. all of the above are correct

22. Problems in balance may follow trauma to which nerve?

- A. abducens
- B. vestibulocochlear
- C. trigeminal
- D. accessory
- E. vagal

23. A patient who received a blow to the side of the skull is now unable to close his eye and the corner of his mouth droops. Which cranial nerve has been damaged?

- A. facial
- B. glossopharyngeal
- C. hypoglossal
- D. vagus

24. When neurons in Wernicke's area send impulses to neurons in Broca's area, the white matter tracts utilized are:

- A. commissural fibers
- B. projection fibers
- C. association fibers
- D. anterior funiculus fibers

X

C

? 25. The basal nuclei include:

- A. hippocampus
- B. lentiform nucleus
- C. red nucleus ✓
- D. mammillary bodies
- E. B) and C)

B X

26. The primary motor area of the cerebral cortex is located in the:

- A. precentral gyrus
- B. postcentral gyrus
- C. temporal lobe
- D. occipital lobe
- E. insula

27. The fissure separating the left and right cerebral hemispheres is the:

- A. central fissure
- B. longitudinal fissure
- C. parieto-occipital fissure
- D. lateral fissure
- E. none of the above

28. The cerebrospinal fluid:

- A. is secreted by the arachnoid villi X
- B. enters the four ventricles after filling and circulating through the subarachnoid space
- C. is completely renewed about once every 48 hours X
- D. is formed by the choroid plexuses
- E. C) and D)

? 29. The abducens nerve regulates the movement of the:

- A. medial rectus muscle
- B. lateral rectus muscle
- C. superior rectus muscle
- D. inferior rectus muscle

B X

30. The nerve is NOT a branch of the trigeminal nerve.

- A. ophthalmic ✓
- B. maxillary ✓
- C. cervical
- D. mandibular ✓

? 31. The cranial nerve with a dual origin (brain and spinal cord) is the:

- A. hypoglossal
- B. accessory
- C. vagus
- D. glossopharyngeal

? 32. The brainstem includes all of the following EXCEPT the:

- A. medulla oblongata ✓
- B. pons ✓
- C. midbrain ✓
- D. diencephalon ✓
- E. reticular formation

D X X

33. A six-year-old is at the edge of the outfield watching jets take off from a nearby military base instead of paying attention to the softball game in which his older sister is playing. A strongly hit softball strikes him in the back of the head with considerable force. Which association area is most likely to be damaged in this accident?

- A. auditory
- B. visual
- C. somatosensory
- D. posterior language
- E. common integrative

34. Astrocytes function to:

- A. form myelin in the central nervous system
- B. form myelin in the peripheral nervous system
- C. maintain the ionic environment of the central nervous system
- D. absorb cerebrospinal fluid and return it to the venous system
- E. form cerebrospinal fluid

35. Which of the following statements is/are TRUE?

- A. The left cerebral hemisphere is usually dominant for language and math. ✓
- B. The primary visual cortex contains a map of visual space. ✓
- C. Brodmann numbers refers to the dimensions of CNS neurons.
- D. Meningitis is the most accurate term for inflammation of neurons.
- E. A) and B)

36. A tumor is growing in the left lateral horns of several segments of a patient's spinal cord. How might these tumors affect the patient?

- A. The patient may not be able to feel somatic sensations from the chest down.
- B. The patient may not be able to move the lower extremities.
- C. The patient may have difficulty regulating cardiac and smooth muscle contractions.
- D. A) and B)

37. Which spinal nerves go directly to the tissues they supply without forming a plexus?

- A. C1 through C4
- B. C4 through T1
- C. T2 through T12
- D. L1 through L5
- E. S1 through S5

38. Which of the following statements regarding spinal nerves is TRUE?

- A. The dorsal ramus carries only sensory information while the ventral ramus carries only motor information.
- B. The dorsal root carries information only toward the spinal cord while the ventral root carries information away from the spinal cord.
- C. The dorsal ramus only carries information toward the posterior compartment of the body while the ventral ramus only carries information toward the anterior compartment of the body.
- D. The dorsal root is equivalent to the dorsal ramus.
- E. The dorsal ramus carries only motor information while the ventral ramus carries only sensory information.

39. The main function of Schwann cells is to:

- A. form the myelin sheaths of neurons in the PNS
- B. form the myelin sheaths of neurons in the CNS
- C. act as part of the blood-brain barrier
- D. act as interneurons
- E. produce cerebrospinal fluid

40. The primary auditory cortex is located in:

- A. the lateral surface of the frontal lobe ✗
- B. the lateral surface of the occipital lobe ✗
- C. the superior surface of the temporal lobe
- D. the inferior surface of the temporal lobe
- E. the postcentral gyrus of the parietal lobe ✗

41. A spinal nerve is covered from the inside out with a:

- A. myelin sheath, endoneurium, perineurium, epineurium
- B. myelin sheath, epineurium, perineurium, endoneurium
- C. myelin sheath, perineurium, epineurium, endoneurium
- D. epineurium, perineurium, endoneurium

42. The sacral plexus is the origin of the:

- A. axillary nerve
- B. obturator nerve
- C. femoral nerve
- D. sciatic nerve
- E. both C) and D)

43. The postcentral gyrus is the:

- A. primary somatosensory area
- B. primary motor area
- C. somatosensory association area
- D. primary auditory area
- E. all of the above

44. As a result of the brain injury suffered by Kevin Chappell in the article I assigned to you to read, Kevin was no longer able to:

- A. link names with faces
- B. recognize people he used to know
- C. recognize objects
- D. draw an object from memory
- E. see

45. All of the following are structures of the limbic system except the _____.

- A. hippocampus ✓
- B. cingulate gyrus
- C. amygdaloid nucleus ✓
- D. caudate nucleus