

Skeletal System – Very Hard Examination Questions

Part I: Multiple Choice Questions (Put a circle around the correct answer)

1. The continuous increase in bone width throughout life is primarily attributed to:
A) Activity of osteoclasts in the epiphyseal plate
B) Appositional growth from the periosteum
C) Persistence of hyaline cartilage
D) Longitudinal growth of lamellae
2. Secondary (lamellar) bone is mechanically stronger than primary bone because:
A) It contains more osteocytes
B) Its collagen fibers are randomly arranged
C) Its collagen fibers are organized into concentric lamellae
D) It lacks canaliculi
3. Permanent tooth discoloration caused by tetracycline occurs due to:
A) Enamel matrix destruction
B) Binding of tetracycline to calcium ions
C) Increased osteoclastic activity
D) Failure of dentin secretion
4. The keystone role of the sphenoid bone is due to its:
A) Contribution to the nasal septum
B) Position between the orbits
C) Articulation with all cranial bones
D) Presence of paranasal sinuses
5. The ethmoid bone is uniquely identified by:
A) Its role in the orbit
B) Presence of sinuses
C) Contribution to the nasal septum
D) Presence of a cribriform plate
6. The external occipital protuberance mainly serves as:
A) A cranial nerve passage
B) Muscle attachment site
C) Articulation with atlas
D) A suture landmark
7. Posteriorly, the nasal septum is formed by the ethmoid and the:
A) Maxilla
B) Palatine
C) Vomer
D) Inferior nasal concha
8. Fontanelles allow:
A) Skull thickening
B) Brain shrinkage

- C) Skull molding during birth
- D) Early fusion of bones

9. The only bone that does not articulate with another bone is:

- A) Mandible
- B) Styloid process
- C) Hyoid bone
- D) Vomer

10. The vertebral canal is formed by aligned:

- A) Vertebral bodies
- B) Spinous processes
- C) Vertebral foramina
- D) Discs

11. The primary spinal curve present at birth is:

- A) Cervical
- B) Lumbar
- C) Thoracic
- D) Cervical lordosis

12. The dens of the axis permits:

- A) Flexion
- B) Extension
- C) Rotation
- D) Lateral bending

13. Intervertebral discs mainly function to:

- A) Produce synovial fluid
- B) Prevent motion
- C) Absorb shock
- D) Increase canal diameter

14. The sternal angle lies between:

- A) Body and xiphoid
- B) Manubrium and body
- C) Clavicle and sternum
- D) Sternum and ribs

15. False ribs are characterized by:

- A) No anterior attachment
- B) Direct sternal attachment
- C) Indirect attachment
- D) No vertebral articulation

16. The clavicle:

- A) Bears limb weight
- B) Prevents rotation
- C) Is the only bony limb–trunk connection
- D) Forms shoulder joint

17. The glenoid cavity belongs to the:

- A) Clavicle
- B) Humerus
- C) Scapula
- D) Radius

18. The intertubercular groove transmits the tendon of:

- A) Triceps
- B) Short head of biceps
- C) Long head of biceps
- D) Brachialis

19. Most common humeral fracture site:

- A) Anatomical neck
- B) Surgical neck
- C) Shaft
- D) Tubercle

20. Ulna does not participate in wrist joint because:

- A) Its position
- B) It lacks carpal articulation
- C) Shaft shape
- D) Olecranon presence

21. Radial tuberosity attaches:

- A) Triceps
- B) Brachialis
- C) Biceps
- D) Pronator teres

22. Carpal bone articulating with radius:

- A) Hamate
- B) Capitate
- C) Scaphoid
- D) Pisiform

23. The acetabulum is formed by:

- A) Ilium only
- B) Pubis & ischium
- C) Ilium, pubis & ischium
- D) Sacrum & ilium

24. Largest foramen in the body:

- A) Foramen magnum
- B) Obturator foramen
- C) Vertebral foramen
- D) Sciatic foramen

25. The fovea capitis attaches:

- A) Quadriceps tendon
- B) Ligament of head of femur
- C) Joint capsule
- D) Labrum

26. Patella function:

- A) Stability
- B) Friction reduction
- C) Increase leverage
- D) Prevent hyperextension

27. Medial malleolus belongs to:

- A) Fibula
- B) Talus
- C) Tibia
- D) Calcaneus

28. Flat foot results from collapse of:

- A) Transverse arch
- B) Longitudinal arches
- C) Tarsal fusion
- D) Weak toes

29. Most mobile but least stable joint:

- A) Hip
- B) Knee
- C) Shoulder
- D) Ankle

30. Menisci function to:

- A) Produce synovial fluid
- B) Increase friction
- C) Compensate surface mismatch
- D) Prevent ligament injury

true or false questions :

- 31. Osteocytes are responsible for bone resorption.
- 32. The periosteum plays a role in fracture repair.
- 33. After epiphyseal plate closure, bones can still increase in length.
- 34. The ethmoid bone contributes to both the nasal cavity and the orbit.
- 35. The sacrum consists of five vertebrae fused into a single bone.
- 36. The fibula participates directly in weight bearing at the knee joint.
- 37. The obturator foramen is formed exclusively by the ilium.
- 38. The shoulder joint is stabilized primarily by its bony architecture.
- 39. Tendon sheaths are modified bursae that reduce friction.
- 40. Saddle joints allow rotation in addition to flexion and extension.

Answer Key

1-B 2-C 3-B 4-C 5-D 6-B 7-C 8-C 9-C 10-C
11-C 12-C 13-C 14-B 15-C 16-C 17-C 18-C 19-B 20-B
21-C 22-C 23-C 24-B 25-B 26-C 27-C 28-B 29-C 30-C

True / False:

31-F 32-T 33-F 34-T 35-T 36-F 37-F 38-F 39-T 40-F