

# **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) Tubercl

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