

Locomotion and Movement – Book Back Evaluation

1. Muscles are derived from
a. ectoderm **b. mesoderm** c. endoderm d. neuro ectoderm
2. Muscles are formed by
a. myocytes b. leucocytes c. osteocytes d. lymphocytes
3. The muscles attached to the bones are called
a. skeletal muscle b. cardiac muscle c. involuntary muscle d. smooth muscles
4. Skeletal muscles are attached to the bones by
a. tendon b. ligament c. pectin d. fibrin
5. The bundle of muscle fibres is called
a. Myofibrils **b. fascicle** c. sarcomere d. sarcoplasm
6. The pigment present in the muscle fibre to store oxygen is
a. myoglobin b. troponin c. myosin d. actin
7. The functional unit of a muscle fibre is
a. sarcomere b. sarcoplasm c. myosin d. actin
8. The protein present in the thick filament is
a. myosin b. actin c. pectin d. leucin
9. The protein present in the thin filament is
a. myosin **b. actin** c. pectin d. leucin
10. The region between two successive Z-discs is called a
a. sarcomere b. microtubule c. myoglobin d. actin
11. Each skeletal muscle is covered by
a. epimysium b. perimysium c. endomysium d. hypomysium
12. Knee joint is an example of
a. saddle joint **b. hinge joint** c. pivot joint d. gliding joint
13. Name of the joint present between the atlas and axis is
a. synovial joint **b. pivot joint** c. saddle joint d. hinge joint
14. ATPase enzyme needed for muscle contraction is located in
a. actinin b. troponin **c. myosin** d. actin
15. Synovial fluid is found in
a. Ventricles of the brain b. Spinal cord c. immovable joint **d. freely movable joints.**
16. Inflammation of joints due to accumulation of uric acid crystals is called as
a. Gout b. myasthenia gravis c. osteoporosis d. osteomalacia
17. Acetabulum is located in
a. collar bone **b. hip bone** c. shoulder bone d. thigh bone
18. Appendicular skeleton is
a. girdles and their limbs b. vertebrae c. skull and vertebral column d. ribs and sternum
19. The type of movement exhibits by the macrophages are
a. flagellar b. ciliary c. muscular **d. amoeboid**
20. The pointed portion of the elbow is
a. acromion process b. glenoid cavity **c. olecranon process** d. symphysis
21. Name the different types of movement
Ans: 1. Amoeboid movement 2. Ciliary movement 3. Flagellar movement 4. Muscular movement
22. Name the filaments present in the sarcomere
Ans: 1. Thick filament – Myosin 2. Thin filament - Actin
23. Name the contractile proteins present in the skeletal muscle
Ans: 1. Myosin – Thick filament 2. Actin – Thin filament
24. When describing a skeletal muscle, what does “striated” mean?
Ans: Striated means the repeated series of dark A- bands and light I- bands present in the myofibril of the skeletal muscle. This type of arrangement gives striated appearance.

25. How does an isotonic contraction take place?

Ans: In isotonic contraction the length of the muscle changes but the tension remains constant.
The force produced is unchanged.

Example: 1. Lifting dumbbells 2. Weightlifting.

26. How does an isometric contraction take place?

Ans: In isometric contraction the length of the muscle does not change but the tension of the muscle changes.
The force produced is changed.

Example: 1. Pushing against a wall 2. Holding a heavy bag.

27. Name the bones of the skull.

- Ans:** 1. Cranial bones(8): Frontal(1), Parietals(2), Temporal(2), Occipitals(1), Sphenoid(1), Ethmoid(1)
2. Facial bones(14): Nasals(2), Maxillae(2), Zygomatics(2), Lachrymals(2), Palatines(2), Inferior nasals(2), Mandible(1), Vomer(1)
3. Hyoid bone(1): U-shaped bone found at the floor of buccal cavity.
4. Ear ossicles(6): Maleus(2), Incus(2), Stapes(2) (Left and Right ear)

28. Which is the only jointless bone in human body?

Ans: Hyoid bone

29. List the three main parts of the axial skeleton

Ans: 1. Skull 2. Hyoid bone 3. Vertebral column 4. Thoracic cage

30. How is tetany caused?

Ans: Tetany is caused by deficiency of parathyroid hormone resulting in reduced calcium levels in the body.

Defect: Rapid muscle spasms occur in the muscles.

31. How is rigor mortis happened?

Ans: Several hours after death all the muscles of the body attain a state of contracture called Rigor mortise.

This is due to complete depletion of ATP in muscle fibres.

The muscle remains in rigor, until the lysosome enzymes completely destroy all muscle proteins.

This will take place with in 15 – 25 hours after death.

32. What are the different types of rib bones that form the rib cage?

- Ans:** 1. True ribs' or vertebro-sternal ribs (First 7 pairs).
2. False ribs' or vertebro-chondral ribs(8th, 9th and 10th pairs).
3. Floating ribs' or vertebral ribs(11th and 12th pairs).

33. What are the bones that make the pelvic girdle?

Ans: The pelvic girdle is composed of two hip bones called coxal bones.

Each coxal bone consists of three fused bones.

1. ilium 2. ischium 3. pubis.

34. List the disorders of the muscular system.

Ans: 1. Myasthenia gravis 2. Tetany 3. Muscle fatigue 4. Atrophy 5. Muscle pull 6. Muscular dystrophy

35. Explain the sliding- filament theory of muscle contraction.

Ans: Text book page no:32

36. What are the benefits of regular exercise?

Ans: 1. The muscles used in exercise grow larger and stronger.

2. The resting heart rate goes down.

3. More enzymes are synthesized in the muscle fibre.

4. Ligaments and tendons become stronger.

5. Joints become more flexible.

6. Protection from heart attack.

7. Influences hormonal activity.

8. Improves cognitive functions.

9. Prevents Obesity.

10. Promotes confidence, esteem.

11. Aesthetically better with good physique.

12. Over all well-being with good quality of life.

13. Prevents depression, stress and anxiety.