

## LOCOMOTION AND MOVEMENT

1. Select the true statement
  - (a) A band is present in the middle of sarcomere
  - (b) H zone is present in the middle of A - band
  - (c) M line is present in the middle of H - zone
  - (d) All of these
2. Functional unit of a muscle fibre is
  - (a) Thick filament
  - (b) Sarcomere
  - (c) Thin filament
  - (d) Myofibrils
3. During muscle contraction in a skeletal muscle fibre,  $\text{Ca}^{2+}$  combine with
  - (a)  $\text{T}_\text{PT}$
  - (b)  $\text{T}_\text{PC}$
  - (c)  $\text{T}_\text{PI}$
  - (d) Tropomyosin
4. A specific minimum strength of nerve impulse or some artificial stimulus required for exciting a muscle fibre to contract is called
  - (a) All or none rule
  - (b) Tetanus
  - (c) Threshold stimulus
  - (d) Fatigue
5. Time taken by a single muscle twitch is
  - (a) 1 second
  - (b) 0.1 second
  - (c) 10 seconds
  - (d) 2 seconds
6. The contraction of muscle of shortest duration is seen in
  - (a) Jaws
  - (b) Eye lids
  - (c) Heart
  - (d) Intestine
7. The muscle fatigue occurs due to accumulation of
  - (a)  $\text{CO}_2$
  - (b) Lactic acid
  - (c) Creatine phosphate
  - (d) Myosin ATPase
8. In a contracted skeletal muscle fibre
  - (a) M line disappears
  - (b) H-zone elongates
  - (c) I-band remains constant
  - (d) A-band disappears
9. The potential difference across the membrane of a relaxed muscle fibre is called resting potential. It amounts to about
  - (a) -70 mV
  - (b) 50 mV
  - (c) 100 mV
  - (d) 50-100 mV
10. The longest individual muscle in the human body is
  - (a) Quadriceps femoris
  - (b) Gluteus maximus
  - (c) Sartorius
  - (d) Latissimus dorsi
11. Which one of the following is a viral disease that weakens the muscles ?
  - (a) Atrophy
  - (b) Poliomyelitis
  - (c) Dystrophy
  - (d) Muscular hypertrophy
12. To one of the lateral surface of humerus a muscle is attached called
  - (a) Biceps brachii
  - (b) Deltoidius
  - (c) Sartorius
  - (d) Messeter
13. Only movable bone in skull is
  - (a) Mandible
  - (b) Vomer
  - (c) Maxilla
  - (d) Palatine
14. Sella turcica a depression enclosing the pituitary gland is found in
  - (a) Temporal bone
  - (b) Parietal bone
  - (c) Sphenoid bone
  - (d) Frontal bone
15. Number of unpaired bones in the cranium is
  - (a) 2
  - (b) 4
  - (c) 6
  - (d) 1

- |   |   |
|---|---|
| <p>16. Foramen magnum is associated with which bone ?</p> <p>(a) Frontal                      (b) Parietal</p> <p>(c) Temporal                  (d) Occipital</p> <p>17. Tongue bone is</p> <p>(a) Mandible                  (b) Hyoid</p> <p>(c) Flat bone                  (d) Coccyx</p> <p>18. Odontoid process is present with which vertebrae of vertebral column ?</p> <p>(a) Atlas vertebrae      (b) Axis vertebrae</p> <p>(c) Vertebrae                  (d) Lumbar vertebrae</p> <p>19. Total number of movable vertebrae in our body are</p> <p>(a) 26                              (b) 24</p> <p>(c) 31                              (d) 30</p> <p>20. Vertebra prominens is present with</p> <p>(a) 1st thoracic vertebrae</p> <p>(b) 1st lumbar vertebrae</p> <p>(c) 7th cervical vertebrae</p> <p>(d) 1st cervical vertebrae</p> <p>21. The heaviest and largest vertebrae are</p> <p>(a) Thoracic                      (b) Lumbar</p> <p>(c) Cervical                      (d) None of these</p> <p>22. The number of floating ribs are</p> <p>(a) 2 pairs                      (b) 12 pairs</p> <p>(c) 7 pairs                      (d) 3 pairs</p> <p>23. Glenoid cavity is associated with</p> <p>(a) Pelvic girdle              (b) Coracoid</p> <p>(c) Clavicle                      (d) Pectoral girdle</p> <p>24. Deltoid ridge is found in which one of the following bones ?</p> <p>(a) Radius                      (b) Tibia</p> <p>(c) Femur                      (d) Humerus</p> <p>25. The sigmoid notch is present in</p> <p>(a) Femur                      (b) Tibio-fibula</p> <p>(c) Humerus                      (d) Radius-ulna</p> | <p>26. Volkman's canals occur in:</p> <p>(a) Cartilage                      (b) Bone</p> <p>(c) Internal ear                  (d) Liver</p> <p>27. Total number of bones found in right upper limb is:</p> <p>(a) 25                              (b) 26</p> <p>(c) 30                              (d) 60</p> <p>28. Nucleus pulposus occurs in:</p> <p>(a) Brain                          (b) Liver</p> <p>(c) Kidney                          (d) Intervertebral discs</p> <p>29. Joint of femur with pelvic girdle is:</p> <p>(a) Ball and socket      (b) Pivot</p> <p>(c) Saddle                      (d) Hinge</p> <p>30. .... acts as a shock absorber to cushion when tibia and femur come together:</p> <p>(a) Disc                          (b) Tendon</p> <p>(c) Ligament                      (d) Cartilage</p> <p>31. Human cranium has ..... bones:</p> <p>(a) 8                                  (b) 14</p> <p>(c) 20                                  (d) none of these</p> <p>32. An acromian process is characteristically found in the:</p> <p>(a) Pelvic girdle of mammals</p> <p>(b) Skull of frog</p> <p>(c) Pectoral girdle of mammals</p> <p>(d) Spine of mammals</p> <p>33. Which of the following pairs, is correctly matched?</p> <p>(a) Cartilaginous joint – skull bones</p> <p>(b) Hinge joint – between vertebrae</p> <p>(c) Fibrous joint – between phalanges</p> <p>(d) Gliding joint – between zygapophyses</p> <p>34. Some vertebrae in birds fuse to form:</p> <p>(a) Sacrum</p> <p>(b) Synsacrum</p> <p>(c) Coccyx</p> <p>(d) None of these</p> |
|---|---|

35. The muscle fatigue is due to:  
 (a)  $\text{Na}^+$  (b)  $\text{K}^+$   
 (c) Lactic acid (d) Citric acid
36. Lumbar vertebrae in human skeleton are:  
 (a) 5 (b) 7  
 (c) 9 (d) 12
37. A cricket player is fast chasing a ball on the field. Which one of the following groups of bones are directly contributing in this movement?  
 (a) Femur, malleus, tibia, metatarsals  
 (b) Pelvis, ulna, patella, tarsals  
 (c) Sternum, femur, tibia, fibula  
 (d) Tarsals, femur, metatarsals, tibia
38. In human body, which one of the following is anatomically correct?  
 (a) Cranial nerves; 10 pairs  
 (b) Floating ribs : 2 pairs  
 (c) Collar bones : 3 pairs  
 (d) Salivary glands : 1 pair
39. Which one of the following is a skull bone?  
 (a) Coracoid (b) Arytenoid  
 (c) Atlas (d) Pterygoid
40. Hinge joint is present between:  
 (a) Femur and ulna  
 (b) Humerus and ulna  
 (c) Femur and pectoral girdle  
 (d) Femur and pelvic girdle
41. What connects muscle of bone?  
 (a) Ligament (b) Cartilage  
 (c) Tendon (d) Saromere
42. During strenuous exercise, glucose is converted into:  
 (a) Glycogen (b) Pyruvic acid  
 (c) Starch (d) Lactic acid
43. Number of cervical vertebrae in mammals are:  
 (a) 7 (b) 8  
 (c) 12 (d) 6
44. Pick out the correct match:  
 (a) Sternum = 14 bones (b) Pelvis = 3 bones  
 (c) Ribs = 20 bones (d) Face = 5 bones
45. Which cartilage is present at the joints of long bones?  
 (a) Calcified (b) Elastic  
 (c) Hyaline (d) Fibrous
46. Innominate is:  
 (a) A nerve  
 (b) A vein  
 (c) An artery  
 (d) A part of skeleton and an artery
47. Which one of the following is the correct description of a certain part of a normal human skeleton?  
 (a) Parietal bone and temporal bone of the skull are joined by fibrous joint  
 (b) First vertebra is axis which articulates with the occipital condyles  
 (c) The 9<sup>th</sup> and 10<sup>th</sup> pairs of ribs are called floating ribs  
 (d) Glenoid cavity is a depression to which the thigh bone articulates
48. Pectoral girdle constitute:  
 (a) Scapula and clavicle  
 (b) Radius and ulna  
 (c) Ilium and ischium  
 (d) Maxilla and mandible
49. In the resting muscle fibre, tropomyosin partially covers.  
 (a) Ca-binding sites of troponin  
 (b) Actin-binding sites on myosin  
 (c) Myosin - binding sites on actin  
 (d) Ca-binding sites on actin
50. Actin-binding sites are located on:  
 (a) Troponin  
 (b) Tropomyosin  
 (c) Both troponin and tropomyosin  
 (d) Both tropomyosin and meromyosin

**ANSWERS KEY**

1	D	11	B	21	B	31	A	41	C
2	B	12	B	22	A	32	C	42	D
3	B	13	A	23	D	33	D	43	A
4	C	14	C	24	D	34	B	44	B
5	B	15	B	25	D	35	C	45	C
6	B	16	D	26	B	36	A	46	D
7	B	17	B	27	C	37	D	47	A
8	A	18	B	28	D	38	B	48	A
9	A	19	B	29	A	39	D	49	C
10	C	20	C	30	D	40	B	50	C