



BIOLOGY

NCERT - FULL MARKS BIOLOGY(TAMIL)

LOCOMOTION AND MOVEMENT

Biology

1. Draw the diagram of a sarcomere of skeletal muscle showing different regions



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2. Define sliding filament theory of muscle contraction.



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3. Describe the important steps in muscle contraction.



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4. Write the difference between:

(a) Actin and Myosin

(b) Red and White muscles

(c) Pectoral and Pelvic girdle



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5. Match Column I with Column II:

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	Column I		Column II
(a)	Smooth muscle	(i)	Myoglobin
(b)	Tropomyosin	(ii)	Thin filament
(c)	Red muscle	(iii)	Sutures
(d)	Skull	(iv)	Involuntary



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6. Name the different types of movement.



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7. How do you distinguish between a skeletal muscle and a cardiac muscle?



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8. Name the type of joint between the following:

(a) atlas/axis

(b) carpal/metacarpal of thumb

(c) between phalanges

(d) femur/acetabulum

(e) between cranial bones

(f) between pubic bones in the pelvic girdle



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Write True Or False If False Change The Statement So That It Is True

1. Actin is present in thin filament

A.True

B.False



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2. H-zone of striated muscle fibre represents both thick and thin filaments.

A.True

B.False



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3. Human skeleton has 206 bones. [A] True
[B]False



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4. There are 11 pairs of ribs in man

A. [A]True

B. [B]False

C.

D.

Answer: False



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5. Sternum is present on the ventral side of the body.

A.True

B.False



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Fill In The Blank Spaces

1. All mammals (except a few) have _____
cervical vertebra.



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2. The number of phalanges in each limb of
human is _____



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3. Thin filament of myofibril contains 2 'F' actins and two other proteins namely _____ and _____.



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4. In a muscle fibre Ca^{++} is stored in _____



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5. _____ and _____ pairs of ribs are called floating ribs.



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6. The human cranium is made of _____ bones.



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Evaluation

1. Muscles are derived from

A. ectoderm

B. mesoderm

C. endoderm

D. neuro ectoderm

Answer:



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2. Muscles are formed by

A. myocytes

B. leucocytes

C. osteocytes

D. lymphocytes

Answer:



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3. The muscles attached to the bones are called

A. skeletal muscle

B. cardiac muscle

C. involuntary muscle

D. smooth muscles

Answer:



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**4. Skeletal muscles are attached to the bones
by**

A. tendon

B. ligament

C. pectin

D. fibrin

Answer:



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5. The bundle of muscles fibres is called

A. Myofibrils

B. fascicle

C. sarcomere

D. sarcoplasm

Answer:



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6. The pigment present in the muscle fibre to store oxygen is

A. myoglobin

B. troponin

C. myosin

D. actin

Answer:



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7. The functional unit of a muscle fibre is

A. sarcomere

B. sarcoplasm

C. myosin

D. actin

Answer:



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8. The protein present in the thick filament is

A. myosin

B. actin

C. pectin

D. leucin

Answer:



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9. The protein present in the thin filament is

A. myosin

B. actin

C. pectin

D. leucin

Answer:



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10. The region between two successive Z-discs is called a

- A. sarcomere
- B. microtubule
- C. myoglobin
- D. actin

Answer:



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11. Each skeletal muscle is covered by

- A. epimysium
- B. perimysium
- C. endomysium
- D. hypomysium

Answer:



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12. Knee joint is an example of

- A. saddle joint
- B. hinge joint
- C. pivot joint
- D. gliding joint

Answer:



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13. Name of the joint present between the atlas and axis is

A. synovial joint

B. pivot joint

C. saddle joint

D. hinge joint

Answer:



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14. ATPase enzyme needed for muscle contraction is located in

A. actinin

B. troponin

C. myosin

D. actin

Answer:



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15. Synovial fluid is found in

A. Ventricles of the brain

B. Spinal cord

C. immovable joint

D. freely movable joints.

Answer:



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16. Inflammation of joints due to accumulation of uric acid crystals is called as

A. Gout

B. myasthenia gravis

C. osteoporosis

D. osteomalacia

Answer:



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17. Acetabulum is located in

- A. collar bone
- B. hip bone
- C. shoulder bone
- D. thigh bone

Answer:



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18. Appendicular skeleton is

A. girdles and their limbs

B. vertebrae

C. skull and vertebral column

D. ribs and sternum

Answer:



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19. The type of movement exhibits by the macrophages are

A. flagellar

B. ciliary

C. muscular

D. amoeboid

Answer:



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20. The pointed portion of the elbow is

A. acromion process

B. glenoid cavity

C. olecranon process

D. symphysis

Answer:



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21. Name the different types of movement.



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22. Name the filaments present in the sarcomere.



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23. Name of the contractile proteins present in the skeletal muscle.



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24. When describing a skeletal muscle, what does "striated" mean?



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25. How does an isotonic contraction take place?



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26. How does an isometric contraction take place?



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27. Name the bones of the skull.



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



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29. List the three main parts of the axial skeleton.





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30. How is tetany caused?



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31. How does rigor mortis happen?



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



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



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34. List the disorders of muscular system.



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35. Define sliding filament theory of muscle contraction.



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36. What are the benefits of regular exercise?



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