CHAPTER-20

Locomotion and Movement

Exercises

1. Draw the diagram of a sarcomere of skeletal muscle showing different regions.
2. Define sliding filament theory of muscle contraction.
3. Describe the important steps in muscle contraction.
4. Write true or false. If false change the statement so that it is true.
   (a) Actin is present in thin filament
   (b) H-zone of striated muscle fibre represents both thick and thin filaments.
   (c) Human skeleton has 206 bones.
   (d) There are 11 pairs of ribs in man.
   (e) Sternum is present on the ventral side of the body.
5. Write the difference between :
   (a) Actin and Myosin
   (b) Red and White muscles
   (c) Pectoral and Pelvic girdle
6. Match Column I with Column II :

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

7. What are the different types of movements exhibited by the cells of human body?
8. How do you distinguish between a skeletal muscle and a cardiac muscle?
9. 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
10. Fill in the blank spaces:
    (a) All mammals (except a few) have _____ cervical vertebra.
    (b) The number of phalanges in each limb of human is _____
    (c) Thin filament of myofibril contains 2 'F' actins and two other proteins namely _____ and _____.
    (d) In a muscle fibre Ca^{++} is stored in _____
    (e) _____ and _____ pairs of ribs are called floating ribs.
    (f) The human cranium is made of _____ bones.