



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

Solution:

(a) - (iv), (b)-(ii), (c)-(i), (d)-(iii)

7. What are the different types of movements exhibited by the cells of human body?

Solution:

The cells of human body show three types of movements: amoeboid, ciliary and muscular.

1. Amoeboid movements: These are found in leucocytes of blood and phagocytes of certain body organs. In such cells, movements are brought with the help of temporary finger-like cytoplasmic projections, called pseudopodia or false feet. So it is also called pseudopodial movement. These pseudopodia are formed by flow of cytoplasm, called cyclosis (simplest form of movement), and cytoskeletal structures like microfilaments.
 2. Ciliary movements: Large number of our internal tubular organs are lined by ciliated epithelium. For instance, the cilia of the cells lining the trachea, oviducts and vasa efferentia propel dust particles, eggs and sperms respectively by their coordinated movements in specific directions in these organs.
- Muscular movements: These are brought about by the action of skeleton, joints and muscles. These are of two types: movements of body parts and locomotion.

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

Solution: We can distinguish between a skeletal muscle and a cardiac muscle on the basis of the features discussed in the following table:

	Skeletal or striated muscle	Cardiac muscle
(i)	They are present in the limbs, body walls, tongue, pharynx and beginning of oesophagus.	They are present in wall of the heart, pulmonary veins and superior vena cava.
(ii)	Fibres unbranched.	Fibres branched.
(iii)	Multinucleate	Uninucleate
(iv)	Light and dark bands present.	Faint light and dark bands present.
(v)	No oblique bridges and intercalated discs.	Oblique bridges and intercalated discs present.
(vi)	Nerve supply from central nervous system.	Nerve supply from the brain and autonomic nervous system.
(vii)	Very rapid contraction.	Rapid contraction.
(viii)	They soon get fatigued.	They never get fatigued.
(ix)	Voluntary	Involuntary

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

Solution:

- (a) Pivot joint
- (b) Saddle joint
- (c) Hinge joint
- (d) Ball and socket joint
- (e) Fibrous joint
- (f) Cartilaginous joint

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 two '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.

Solution:

- (a) 7
- (b) 14
- (c) tropomyosin, troponin
- (d) sarcoplasmic reticulum
- (e) 11th and 12th
- (f) 8

***** END *****