

**EXERCISE-I (Conceptual Questions)****Build Up Your Understanding**

1. Functionally cardiac muscles are similar to:
  - (1) Unstripped muscles
  - (2) Striped muscles
  - (3) Striped & Unstripped muscles
  - (4) None
2. During contraction of muscles :
  - (1) Actin Filament slide over actin
  - (2) Myosin filament slide over actin
  - (3) Actin filament slide over myosin
  - (4) Myosin filament slide over actin
3. Mitochondria in cardiac muscles :
  - (1) More than other muscles fibres
  - (2) Less than other muscles fibres
  - (3) Equal than other muscles fibres
  - (4) None
4. Rigor mortis is :-
  - (1) Contraction of muscles after death
  - (2) Contraction of muscles before death
  - (3) Shivering of muscles
  - (4) None
5. Unstripped muscle are also known as :-
  - (1) Visceral
  - (2) Smooth
  - (3) Involuntary
  - (4) All
6. Contractile unit of muscle fibres:-
  - (1) Muscle fibre
  - (2) Sarcomere
  - (3) Myofibril
  - (4) Sacosom
7. Epimycium of mucle are made up of :
  - (1) White fibrous connective tissue
  - (2) Adipose connective tissue
  - (3) Reticular connective tissue
  - (4) Areolar connective tissue
8. Largest muscle is :
  - (1) Gluteus maximus
  - (2) Sartorius
  - (3) Stapedius
  - (4) Biceps muscle
9. Papillary muscle found in :-
  - (1) Heart
  - (2) Liver
  - (3) Kidney
  - (4) Lung
10. ATP-ase activity found in :-
  - (1) Myosin filament
  - (2) Actin filament
  - (3) Both
  - (4) None
1. Total number of muscles in our body is :-
  - (1) 256 muscles
  - (2) 639 muscles
  - (3) 400 muscles
  - (4) 421 muscles
12. Longest smooth muscles are :-
  - (1) Intestine
  - (2) Stomach
  - (3) Uterus (Pregnant)
  - (4) Urinary bladder
13. Strongest muscles :
  - (1) Thigh muscle
  - (2) Leg muscle
  - (3) Arm muscle
  - (4) Jaw muscle
14. Muscles of Iris & Ciliary body originate :-
  - (1) Ectoderm
  - (2) Mesoderm

- (3) Endoderm (4) All of above
15. Cardiac muscles Fibres:  
 (1) Involuntary (3) Striated like (2) Non-fatigue (4) All
16. Striated muscle fibres found in :-  
 (1) Trachea (2) Lung (3) Leg (4) Gall bladder
17. Smooth muscles fibres are :  
 (1) Spindle shaped (2) Unbranched & Involuntary  
 (3) Uninucleated (4) All of above
18. Chemical Ions responsible for muscles contraction :-  
 (1)  $\text{Ca}^{++}$  &  $\text{K}^{+}$  (2)  $\text{Na}^{+}$  &  $\text{K}^{+}$   
 (3)  $\text{Na}^{+}$  &  $\text{Ca}^{++}$  (4)  $\text{Ca}^{++}$  &  $\text{Mg}^{++}$  Ions
19. Muscle length doesn't changes:  
 (1) Isotonic contraction (2) Isometric contraction  
 (3) Tetanic contraction (4) None
20. Phosphagen in vertebrates :  
 (1) Phospho creatine (2) Phospho arginine  
 (3) ATP (4) Phosphoric acid
21. Smallest muscles in rabbit & man :-  
 (1) Gluteus maximums (2) Stapedius  
 (3) Sartorius (4) Masseter
22. When subminimal stimulus given then:-  
 (1) Muscle contract vigorously (2) Muscle contract slowly  
 (3) Muscle never contract (4) Muscle become fatigue
23. When supra liminal stimulus given than :-  
 (1) Muscle contraction more than normal  
 (2) Muscle contraction less than normal  
 (3) Muscle contraction below average  
 (4) Muscle contraction same as threshold stimulus
24. The type of muscles present in our :  
 (1) upper arm are smooth muscle fibres fusiform in shape.  
 (2) heart are involuntary and unstriated smooth muscles.  
 (3) intestine are striated and involuntary.  
 (4) thigh are striated and voluntary.
25. Which one of the following is correct pairing of body part and the kind of muscle tissue that moves it?  
 (1) Iris - Involuntary smooth muscle  
 (2) Heart wall - Involuntary unstriated muscle  
 (3) Biceps of upper arm - Smooth muscle fibres

(4) Abdominal - Smooth muscle wall

- 26.** Immediate source of energy for muscle contraction is:-  
 (1) Glucose (2) GTP (3) ATP (4) Creatine phosphate
- 27.** The muscle fatigue occurs due to accumulation  
 (1) CO<sub>2</sub> (2) Lactic acid  
 (3) Creatine phosphate (4) Myosin ATPase
- 28.** One myosin filament in the myofibril of muscle fibre is surrounded by how many filaments?  
 (1) Two (2) Four (3) Six (4) Three
- 29.** Least blood supply will be present in :-  
 (1) Skeletal muscle (2) Cardiac muscle  
 (3) Smooth muscle (4) All of the above
- 30.** Z-disc is formed by :-  
 (1) Actin protein (2) Myosin protein  
 (3) Actin in protein (4) Myomesin protein

## ANSWER KEY

### EXERCISE-I (Conceptual Questions)

- |                |                |                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>1.</b> (1)  | <b>2.</b> (3)  | <b>3.</b> (1)  | <b>4.</b> (1)  | <b>5.</b> (4)  | <b>6.</b> (2)  | <b>7.</b> (1)  |
| <b>8.</b> (1)  | <b>9.</b> (1)  | <b>10.</b> (1) | <b>11.</b> (2) | <b>12.</b> (3) | <b>13.</b> (4) | <b>14.</b> (1) |
| <b>15.</b> (4) | <b>16.</b> (3) | <b>17.</b> (4) | <b>18.</b> (4) | <b>19.</b> (2) | <b>20.</b> (1) | <b>21.</b> (2) |
| <b>22.</b> (3) | <b>23.</b> (4) | <b>24.</b> (4) | <b>25.</b> (1) | <b>26.</b> (3) | <b>27.</b> (2) | <b>28.</b> (3) |
| <b>29.</b> (3) | <b>30.</b> (3) |                |                |                |                |                |