

## Questionbank Biology

**ANSWER KEY**

1	c	26	d	51	d	76	a	101	c	126	c
2	c	27	b	52	c	77	d	102	d	127	a
3	a	28	c	53	d	78	d	103	b	128	a
4	a	29	b	54	b	79	c	104	c	129	b
5	b	30	c	55	d	80	b	105	c	130	d
6	a	31	b	56	b	81	a	106	b	131	a
7	b	32	b	57	c	82	b	107	a	132	c
8	a	33	d	58	c	83	b	108	a	133	b
9	d	34	a	59	d	84	d	109	d	134	c
10	a	35	a	60	b	85	a	110	a	135	d
11	b	36	c	61	a	86	d	111	b		
12	d	37	d	62	b	87	b	112	c		
13	b	38	d	63	c	88	a	113	d		
14	d	39	d	64	d	89	b	114	c		
15	b	40	d	65	a	90	d	115	d		
16	d	41	a	66	b	91	c	116	c		
17	b	42	a	67	c	92	b	117	b		
18	c	43	b	68	a	93	c	118	c		
19	b	44	d	69	a	94	a	119	c		
20	c	45	b	70	d	95	d	120	b		
21	b	46	b	71	b	96	c	121	b		
22	b	47	c	72	c	97	d	122	c		
23	c	48	c	73	b	98	c	123	a		
24	b	49	c	74	b	99	c	124	c		
25	c	50	a	75	c	100	d	125	c		



## Questionbank Biology

**Unit :- V****Chapter-23. Locomotion and Movement****IMPORTANT POINTS**

- Movement is one of the significant features of all living organism. Movement of flagella, cilia and tentacles are shown by many living animals. Human beings can move jaws, eyelids, tongue, limbs etc.
  - Some of the movement bringing change of place or position such voluntary movements are called locomotion. Running, walking, flying, swimming, climbing are the examples of it.
  - Three type of locomotion : amoeboid, ciliary and muscular. Organisms locomote commonly for shelter, search of food, escape from enemies or predators, mate, suitable breeding grounds or favorable climate conditions.
  - Muscles are mesoderm origin. Three types of it : (1) Striated muscles tissue (2) Non-striated muscles tissue 3. Cardiac muscles tissue.
  - In the structure of striated muscles dark band and light band is found. It function under the voluntary control of the nervous system. In the non-striated muscles there are no transverse stripes. They functioning under autonomic nervous system. Cardiac muscles having intercalated; disc. Its contraction is rhythmically and controlling and blood supply is abundant.
  - In striated muscle tissue A, I, H, Z bands are found. A-band made up by myosin and I-band by actin. The distance between two successive Z-band is called sarcomere. It is the functional unit of striated muscle.
  - The hard, supportive system used to protect soft organ of body, The study of skeleton is called osteology. The important role of skeletal system is for locomotion & movement of body parts. The structure of skeleton system consists of bones and cartilage type connective tissue.
  - In human skeleton system made up by 206 bones and a few cartilage. It is divided into main two parts (1) Axial skeletal system (2) Appendicular skeleton system.
  - Axial skeleton constitute the skull, vertebral column, sternum and ribs. It is located in longitudinal axis of body and made up by 80 bones.
  - The bones of the limbs along with their girdles constitute the appendicular skeleton. In the appendicular skeleton fore limb bones and hind limb bones are included. Each limb made up by 30 bones. In girdles; pectoral girdle and pelvic girdle are included.
  - The structural arrangement of tissues which connects two or more bones together at their place of meeting is termed as joint. Joints are essential for all types of movements involving the bony part of body.
  - **Joints classified into three types :** (1) Immovable or fibrous joints. (2). Cartilagenous joint and (3) Freely movable joints.
- Disorders Related to Bones :**
- **Rheumatoid Arthritis :** A probability exists of arthritis in synovial joints. In this disease, the synovial membrane becomes inflamed. It becomes thick. Degradatory changes occur and joint becomes almost immobile. It becomes very painful when movement occur. There is evidence that the autoimmune reaction is responsible for this.
  - **Osteoarthritis :** Osteoarthritis occurs in aged persons. In this disease, the cartilage on the head

## Questionbank Biology

of the head of the bones become degraded. As this occurs, the ends of two bones which are near each other become rough and reshaped. Osteoarthritis occurs in such joints which are used most often. which is more common in hands, knee and vertebral column.

- **Gouty Arthritis** : Gouty arthritis occurs due to excessive, accumulation of uric acid in joints. The amount of uric acid increases due to irregularities of metabolism. It accumulates in joints and combines with the sodium salts. Their crystals become collected in joints and induce inflammation. Pain results. Probability of joint becoming immobile.
  - **Osteoporosis** : This a disease of increasing porosity of bones with increasing age. This disease is an outcome of imbalance between activities of osteoblasts (bone forming cells) and osteoclasts (bone destroying cells.)
- Disorders Related to Muscles :**
- **Myasthenia Gravis** : It is an auto immune disorder that effects neuromuscular junction leading to fatigue, weakening and paralysis of skeletal muscle.
  - **Tetany** : It is a muscular disorder in which rapid spasms in muscle occur due to lesser  $Ca^{+2}$  in the body fluid.

**For the given options select the correct options (a, b, c, d) each carries one mark.**

1. What is important character of all living organism ?  
(a) Movement                      (b) Locomotion                      (c) Reproduction                      (d) All a, b, c.
2. Which is not a example of movement in human ?  
(a) Movement of jaws                      (b) Movement of eyelash and tongue  
(c) Movement of appendices                      (d) Hearing process
3. By which Amoeba, Paramecium and Hydra respectively indicate movement ?  
(a) Pseudopodia, cilia, tentacles                      (b) Cilia, flagella, tentacles  
(c) Tentacles, Cilia, Pseudopodia                      (d) Cilia, Tentacles, Pseudopodia
4. Which are the example of autonomous movement in organism ?  
(a) Running, Walking                      (b) Flying, Swimming                      (c) Gliding, Sliding                      (d) All a, b, c.
5. By which process performs plant movement its parts ?  
(a) Phototropism                      (b) Geotropism                      (c) Chemotropism                      (d) All a, b, c.
6. What are the main aims of locomotion in animal ?  
(a) For shelter, search of food                      (b) For the escape of enemy, for predation  
(c) To get a place for reproduction                      (d) All a, b, c.
7. What is not included in the type of the movement in organisms ?  
(a) Amoeboid movement                      (b) Ciliary movement  
(c) Muscular movement                      (d) joining process
8. Who shows amoeboid movement ?  
(a) Amoeba                      (b) Leucocytes                      (c) Macrophage                      (d) All a, b, c.
9. In which of the following ciliary movement can be seen ?  
(a) In trachea                      (b) In oviduct                      (c) In vasa efferentia                      (d) All a, b, c.

## Questionbank Biology

10. From which germinal layer muscle tissue origins ?  
(a) Ectoderm (b) Mesoderm (c) Endoderm (d) All a, b, c.
11. What percent of the total body weight of an adult humans is made up of muscle ?  
(a) 40 - 50 % (b) 30 - 40 % (c) 60 - 70 % (d) 45 - 55 %
12. Which are characteristic properties of muscles ?  
(a) Electricity, excitability (b) Contractility  
(c) Extensibility, elasticity (d) All a, b, c.
13. How many type of muscles in living organisms  
(a) 1 (b) 2 (c) 3 (d) 4
14. Which types of muscles are present in organisms ?  
(a) Striated muscle (b) Visceral muscle (c) Cardiac muscle (d) All a, b, c.
15. Which muscle is controlled by autonomous nervous system ?  
(a) Striated muscle (b) Visceral muscle (c) Cardiac muscle (d) All a, b, c.
16. Which muscle is controlled by sympathetic nervous system ?  
(a) Striated muscle (b) Cardiac muscle (c) Non Striated muscle (d) All a, b, c.
17. Which muscle is present in digestive track, reproductive track and respiratory track ?  
(a) Visceral muscle (b) Non Striated muscle (c) Voluntary muscle (d) All a, b, c.
18. Which band is present in Cardiac muscle ?  
(a) Intercalated disc (b) A- band (c) I-band (d) All a, b, c.
19. Which muscle does not fatigue and possesses abundant blood supply during life span ?  
(a) Striated muscle (b) Non Striated muscle  
(c) Skeleton muscle (d) a and b both
20. Which muscle possesses multinucleate structure (Syncytium) ?  
(a) Striated muscle (b) Skeleton muscle  
(c) Non Striated muscle (d) a and b both
21. By which name's isotropic and anisotropic band respectively known ?  
(a) I - band, A - band (b) I - band, Intercalated-dise  
(c) A - band, Z - band (d) H - band, Z - band
22. Which line is located in the center of H region ?  
(a) Krause membrane (b) M- line (c) Z - band (d) Hensen's line
23. The space between two successive Z-band is known as.....  
(a) A - band (b) I - band (c) Krause membrane (d) Sarcomere
24. Which band is called krause membrane ?  
(a) A (b) Z (c) I (d) H
25. The functional unit of skeleton muscle is called as.....  
(a) Myofibrils (b) Sarcomere (c) Hensen's line (d) Krause membrane
26. What is the name of rod shaped fibrous protein ?  
(a) Troponin (b) Actin (c) Tropomyosin (d) Meromyosin

## Questionbank Biology

27. Which are two forms of actin fiber ?  
(a) Monomer-G- protein (b) Polymeric H- actin (c) Polymeric F-actin (d) a and c both
28. What the is name of complex, small globular protein ?  
(a) Troponin (b) Tropomyosin (c) Actin (d) Meromyosin
29. Which is the essential mineral element for muscle contraction ?  
(a)  $\text{Ca}^{++}$  (b)  $\text{Mg}^{++}$  (c)  $\text{K}^+$  (d)  $\text{Na}^+$
30. Which is essetial for transmission of messages ?  
(a) Adrenalin (b) Acetylcholine (c) Norqdrenalin (d) Vasopressin
31. Which chemical is envolved duribg anaerobic respiration of glycogen of muscle ?  
(a) Ethy alcohol (b) Lactic acid (c)  $\text{Co}_2$  (d) a and c both
32. Which chemical is responsible to make skeleton muscle fatigue ?  
(a) Lactic acid (b) Pyruvic acid (c) Ethyl alcohol (d) Acetaldehyde
33. Which is/are the type of skeleton muscle ?  
(a) Red muscle (b) White muscle (c) Non-striated muscle (d) a and b both
34. In which muscle amount of myoglobin is high ?  
(a) Red muscle (b) White muscle (c) Non-striated muscle (d) a and b both
35. Which muscle is known as an aerobic muscle ?  
(a) Red muscle (b) White muscle (c) Non-striated muscle (d) a and b both
36. The study of skeleton system is called as.....  
(a) Myology (b) Cardiology (c) Osteology (d) Histology
37. By which tissue skeleton system is made up of ?  
(a) Epithelial tissue (b) Connective tissue (c) Nervous tissue (d) Muscle tissue
38. How many bones are present in the struture of skeleton system of human ?  
(a) 206 (b) 210 (c) 308 (d) 146
39. What is included in axial skeleton ?  
(a) Skull and vertebral column (b) Ribs  
(c) Sternum (d) a and b both
40. What is included in the structure of skull ?  
(a) Bones of cranium (b) Bones of face (c) Sternum (d) a and b both
41. How many bones, the skull is made of ?  
(a) 23 (b) 22 (c) 21 (d) 20
42. How many flat bones are present in a cranium ?  
(a) 6 (b) 8 (c) 10 (d) 12
43. Who makes the floor of the buccal cavity ?  
(a) Hyoid bone (b) Vomer (c) Mandible (d) Frontal
44. How many bone are present in each middle ear of human ?  
(a) 3 (b) 4 (c) 6 (d) 8

## Questionbank Biology

45. How many vertebrae are present in the structure of vertebral column of human ?  
 (a) 26 (b) 33 (c) 38 (d) 29
46. Where cervical vertebrae are found ?  
 (a) Thorax region (b) Lumbar region (c) Throat (d) Tail
47. What is the formula of human vertebrae ?  
 (a)  $C_7T_{12}L_5S_5C_4$  (b)  $C_2T_{10}L_4S_5C_4$   
 (c)  $C_7T_{12}L_4S_4C_5$  (d)  $C_6T_{11}L_7S_5C_4$
48. Which flat bone is present in the middle line of thorax region of human ?  
 (a) Sternum (b) Collar (c) Vertebral column (d) Femur
49. How many pairs of ribs are found in human ?  
 (a) 12 (b) 14 (c) 18 (d) 24
50. How many true pairs of ribs are found in human ?  
 (a) 7 (b) 6 (c) 8 (d) 10
51. How many False pairs of ribs are found in human ?  
 (a) 2 (b) 7 (c) 8 (d) 9
52. Which are floating rib in human ?  
 (a) 11th and 12th (b) 9th and 10th (c) 7th and 8th (d) 5th and 7th
53. What is the number of thoracic vertebrae in human ?  
 (a) 12 (b) 5 (c) 7 (d) 8
54. What is the number of bones present in each leg of human ?  
 (a) 30 (b) 35 (c) 25 (d) 40
55. What is the formulae of phalanges of hand and leg of human ?  
 (a) 2,3,3,3,3 (b) 0,2,2,3,3 (c) 2,2,3,3,3 (d) 0,2,3,3,3
56. What are the number of tarsal and metatarsal respectively in each limb of human ?  
 (a) 5, 7 (b) 7, 5 (c) 8, 3 (d) 5, 14
57. How many bones are present in the axial skeleton of human ?  
 (a) 80 (b) 100 (c) 125 (d) 106
58. How many numbers of carpals and metacarpals are present respectively in each forelimb of human ?  
 (a) 8,5 (b) 5,8 (c) 10,8 (d) 14, 30
59. By which bone half part of the pectoral girdle is made ?  
 (a) Clavicle (b) Scapula (c) a and b (d) Sternum
60. By which structure complete pelvic girdle is formed ?  
 (a) Two Ilium (b) Ischium (c) Two Coxal bone (d) Acetabulum
61. What is incorporated in pelvic girdle ?  
 (a) Ilium, Ischium, pubis (b) Ilium, Ischium, Clavicle  
 (c) Ilium, Ischium, Scapula (d) Humerus, Clavicle, scapula

## Questionbank Biology

62. Which bone is occurs in Shank ?  
(a) Radio-Ulna (b) Tibio-fibula (c) Humerus (d) Femur
63. What is the number of cervical vertebrae in human ?  
(a) 4 (b) 7 (c) 9 (d) 14
64. The number of tarsals in each limb of human ?  
(a) 5 (b) 6 (c) 7 (d) 8
65. By the help of what amoeboid movement is possible ?  
(a) Flagellary (b) leg (c) Cilia (d) Pseudopodia
66. Which movement is seen in Paramoecium ?  
(a) Flagella's (b) Amoeboid (c) Ciliary (d) Pseudopodia
67. Through what the movement of internal organs of body occur ?  
(a) Skeleton muscles (b) Voluntary muscles  
(c) Non-striated muscles (d) All type of muscles
68. It is type of non-striated muscles ?  
(a) Voluntary muscles (b) Skeleton muscles (c) Involuntary muscles (d) None of the given
69. Which is the functional unit of voluntary muscles ?  
(a) H-band (b) A-band (c) I-band (d) Sarcomere
70. Where cardiac muscle is present ?  
(a) In all internal Organs (b) In lungs  
(c) In heart (d) In hand
71. How many vertebrae are in found adult human ?  
(a) 33 (b) 28 (c) 24 (d) 26
72. Which are the three type of muscle found in human ?  
(a) Voluntary muscle, Involuntary muscle and circular muscle  
(b) Striated muscle, Non-striated muscle and Voluntary muscle  
(c) Involuntary muscle, Autonomous muscle and Transverse muscle  
(d) Skeleton muscle, Visceral muscle, And cardiac muscle
73. Which of the following is not true ?  
(a) Cilia – Paramoecium (b) Tentacles – Hydra  
(c) Pseudopodia – Amoeba (d) Flagella – Hydra
74. Which of the following pair is improper ?  
(a) A-band, I- band – Striated muscle  
(b) A-band, I- band Intercalated disc – Striated muscle  
(c) H- line – Nonstriated muscle  
(d) Z- line – Striated muscle
75. Which of the following pair is improper ?  
(a) Axial skeleton – 80 bones (b) Cranium — 8 bones  
(c) Vertebral column – 26 vertebrae (d) Ribs – 22 pairs

## Questionbank Biology

76. Make correct pairs from the column - I and column - II.

**Column I**

- (P) Cervical vertebrae  
 (Q) Thoracic vertebrae  
 (R) Lumbar vertebrae  
 (S) Sacrum vertebrae  
 (T) Coccygeal vertebrae  
 (a) (P-ii) ( Q -iv ) ( R- ii) ( S - v) ( T - i)  
 (c) ( P-iii) ( Q -iv) ( R- ii) ( S - v) ( T - i)

**Column - II**

- (i) 4  
 (ii) 5  
 (iii) 7  
 (iv) 12  
 (iv) 5  
 (b) ( P-ii) ( Q -iii) ( R- i) ( S - v) (T - iv)  
 (d) ( P-v) ( Q -iii) (R- ii) ( S - i) ( T - iv)

77. Make proper pairs.

**Column - I**

- (P) Red muscle  
 (Q) White muscle  
 (R) Immovable joint  
 (S) Synovial joint  
 (a) ( P-iv ) ( Q -iii) (R- i) ( S - ii)  
 (c) (P-iii) (Q-iv) (R-i)(S-ii) pectoral girdle

**Column - II**

- (i) Muscle of eye ball  
 (ii) Flight muscle of bird  
 (iii) In-between humerus and  
 (iv) Bones of skull  
 (b) ( P-ii) ( Q -i) (R- iiv) ( S - iii)  
 (d) ( P-ii) ( Q -i) (R-iv ) ( S - iii)

78. Make correct pairs from the column -I and column - II.

**Column - I**

- (P) Skull bone  
 (Q) Vertebral column  
 (R) Carpals  
 (S) Axis  
 (T) Clavicle  
 (a) ( P-ii) ( Q -iv ) ( R- ii) ( S - v) ( T - i)  
 (c) ( P-iii) ( Q -v) ( R- iv ) ( S - ii) (T- i)

**Column - II**

- (i) Two curves  
 (ii) Second vertebrae  
 (iii) 22  
 (iv) 08  
 (iv) four curves  
 (b) ( P-ii) ( Q -iii) ( R- i) ( S - v) (T - iv)  
 (d) (P-v)(Q-iii) ( R-ii) (S-i)(T-iv)

79. Make proper pairs.

**Column - I**

- (P) F- actin  
 (Q) Ethmoid  
 (R) ATPase  
 (S) Lacrymal bone  
 (a) ( P-iv ) ( Q -iii) (R- i) ( S - ii)  
 (c) ( P-iii) ( Q -iv) (R- ii) ( S - i)

**Column - II**

- (i) Facial bone  
 (ii) Myosin  
 (iii) Polymerize protein  
 (iv) Bones of skull  
 (b) ( P-ii) ( Q -i) ( R- iiv) ( S - iii)  
 (d) ( P-ii) ( Q -i) (R- iv ) ( S - iii)

80. Which is the smallest bone of fore limb ?

- (a) Humerus (b) Femur (c) carpals (d) Fibula

(CPMT- 2002)

81. In which bone triangular acromion is present ?

- (a) Radias (b) Scapula (c) Femur (d) Humerus

(CPMT- 2002)



## Questionbank Biology

82. Humerus bone is found : (DPMT- 1985)  
 (a) Radius (b) Ulna (c) arm (d) Fore arm
83. Hinge joint occurs between : (CPC - 2003 )  
 (a) Humerus and radio-ulna (b) Femur and pelvic girdle  
 (c) Humerus and Pectoral girdle (d) Skull and atlas
84. Total numbers of vertebrae in human skeleton. (JIMERT 2002)  
 (a) 30 (b) 32 (c) 33 (d) 35
85. Number of bones present in an arm is : (AFMC - 2004 )  
 (a) 30 (b) 32 (c) 35 (d) 40
86. Ribs are attached to : (Wardha- 2001 )  
 (a) Scapula (b) Sternum (c) Clavicle (d) Ilium
87. In humans, coccyx is formed by the fusion of vertebrae (NCERT- 1978)  
 (a) 3 (b) 4 (c) 5 (d) 6
88. What is formed by the bones of pectoral girdle, pelvic girdle and limbs ? (CPMT- 1987)  
 (a) Body skeleton (b) External skeleton  
 (c) Axial skeleton (d) Appendicular skeleton
89. Number of floating ribs in human body is : (JIMERT- 2000)  
 (a) 6 pairs (b) 5 pairs (c) 3 pairs (d) 2 pairs
90. Ankle joint is : (Pb.P.M.T- 1997)  
 (a) Pivot joint (b) Ball and socket joint (c) Hinge joint (d) Gliding joint
91. Sarcomere is distance between : ( BHU-2001, CBSE- 2004, RPMT- 2002)  
 (a) Two I- bands (b) A and I bands (c) Two consecutive Z- lines (d) Z and A bands
92. Which is the skull bone ? (CBSE- 1998)  
 (a) Atlas (b) Femur (c) Tibia (d) Nasal
93. How many bones are there in appendicular skeleton ? (BV - 2003)  
 (a) 80 (b) 120 (c) 126 (d) 206
94. Where is hinge joint found ? (APMEE- 2002)  
 (a) Elbow and shoulders (b) Elbow and Knee  
 (c) Atlas and odontoid process (d) Knee and ankle
95. Number of ball and socket joints present in human body is : (Wardha- 2003)  
 (a) 2 (b) 4 (c) 5 (d) 8
96. Synovial joints is : (Orrisa - 2004)  
 (a) Ball and socket joint (b) Pivot joint  
 (c) Hinge joint (d) All the above
97. Give the number of Cranium bones ? (JKCMEE - 2005)  
 (a) 8 (b) 10 (c) 14 (d) 20
98. Cervical vertebrae are located in : (HPPMT - 2005)  
 (a) Thoracic region (b) Abdominal region (c) Neck region (d) Hip region

## Questionbank Biology

99. Lumbar vertebrae are located in : (HPPMT - 2005)  
 (a) region (b) Thorax  
 (c) Abdominal region (d) Hip region
100. Ratio of which is more in red muscle ? (JIMER -2002)  
 (a) Myoglobin (b) Actin (c) Myosin (d) Albumin
101. Friction is lessened in ball and socket joint by (MPPMT -1990)  
 (a) Coelomic fluid (b) Synovial fluid  
 (c) Pericardial fluid (d) Mucin
102. Each half of pelvic girdle is made of (MPPMT -1998)  
 (a) Ischium (b) Ilium (c) Pubis (d) All the above
103. Extremities of long bones possess cartilage (C.B.S.E. 2002)  
 (a) Calcified (b) Fibrous (c) Elastic (d) Hyaline
104. Glenoid cavity is found in (A.M.U. - 2000)  
 (a) Pelvic girdle (b) Skull (c) Pectoral girdle (d) Sternum
105. An example of gliding joints is (MPPMT -1992)  
 (a) Humerus and glenoid cavity (b) Femur and tibio-fibula  
 (c) Occipital condyle and odontoid process (d) Zygapophyses of adjacent vertebrae.
106. During muscle contraction (C.B.S.E. - 2001)  
 (a) Size of a-bands remains the same (b) Size of H-zone becomes smaller  
 (c) Size of I-bands decreases (d) All the above
107. Substance that accumulates in a fatigued muscle is (Har.P.M.T. - 2003)  
 (a) Pyruvic acid (b) Lactic acid (c) CO<sub>2</sub> (d) ADP
108. What is the phenomenon of overstretched or torn ligaments and tendon called  
 (a) Sprain (b) Dislocation (c) Fracture (d) Tension
109. Which ion is essential for muscle contraction ? (Pb. PMT - 2000)  
 (a) Na (b) K (c) Ca (d) Cl
110. Ends of long bones are covered by (Bhi.P.M.T-2001)  
 (a) Ligaments (b) Cartilage (c) Muscles (d) Blood cells
111. Acromion process is part of (B.V. 2003)  
 (a) Vertebral column (b) Pelvic girdle (c) Femur (d) Pectoral girdle
112. In mammals the lower jaw is made of (Kerala -2000)  
 (a) Maxilla (b) Dentary (c) Mandible (d) Ethmoid
113. Inter-articular disc occurs in (B.H.U. -1997)  
 (a) Wall of heart (b) Wall of liver  
 (c) Pubic symphysis (d) In between two vertebrae
114. Acetabulum is part of (C.E.T. chd. 2000)  
 (a) Pelvic girdle (b) Pectoral girdle (c) Forearm (d) Upper arm

Questionbank Biology
----------------------

115. The function unit of contractile system of a striated muscles is (C.M.E.E.-2004)  
 (a) Sarcomere (b) Z-band (c) Cross bridge (d) Myofibril
116. Fibrous joints are present between (M.P.P.M.T. -2000)  
 (a) Thumb and metatarsal (b) Humerus and radio-ulna  
 (c) Bonus of skull (d) Glenoid cavity and pectoral girdle
117. Joint of sternum and ribs is (C.B.S.E. -2000)  
 (a) Cartiginous (b) Fibrous joint (c) Angular joint (d) Hinge joint
118. During & vigorous exercise, glucose is converted into (C.P.M.T.- 2000)  
 (a) Glycogen (b) pyruvic acid (c) Starch (d) Lactic acid
119. Synovial fluid is present in (Har. P.M.T. - 2000)  
 (a) Spinal cavity (b) Cranial cavity  
 (c) Freely movable joints (d) Fixed joints
120. Synovial fluid is secreted by (B.V.-2001)  
 (a) Blood (b) Cartilage  
 (c) Bone (d) Synovial membrane
121. Iliac of pelvic girdle is articulated with sacrum for (B.V.-2001)  
 (a) Bending (b) Jumping (c) Support (d) Running
122. Anisotropic band are made up of (A.M.U.- 2001)  
 (a) Myosin filaments (b) Actin filaments (c) Elastin filaments (d) Both A and B
123. Socket in pelvic girdle in which head of femur articulates is formed by fusion of (uttaranchal - 2001)  
 (a) Ischium and pubis (b) Ilium and pubis (c) Ilium and ischium (d) Both a and b
124. The movable skull bone is (Wardha-2002)  
 (a) Maxilla (b) Vomer (c) Mandible (d) All the above
125. Gliding joint occur between (B.V. - 2002)  
 (a) Prezygapophysis and postzygapophysis (b) Acetabulum and femur  
 (c) Pelvis girdle and femur (d) Humerus and radius.
126. Red muscle are rich in (J.I.P.M.E.R.-2002)  
 (a) Golgi bodies (b) Mitochondria (c) Lysomomes (d) Ribosomes.
127. Joint between atlas and axis is (A.F.M.C. - 2003)  
 (a) Pivot (b) Hinge (c) Angular (d) Saddle
128. The longest bone amongst the following is (B.V - 2003)  
 (a) Radius (b) ulna (c) Humerus (d) Femur
129. Joint between metacarpals and phalanges is (B.V - 2003)  
 (a) Ball and socket (b) Pivot (c) Saddle (d) Hinge
130. ATP-ase needed for muscle contraction is present over (C.B.S.E.-2004)  
 (a) Actin (b) Troponin (c) Myosin (d) Actin

## Questionbank Biology

131. Make correct pairs from the column - I and column - II. (OrrisaJEE - 2010)

Column - I

Types of synovial joint

(P) Ball and socket

(Q) Hinge

(R) Pivot

(S) Saddle

Column - II

Bones involved

(i) Carpal and metacarpal of thumb

(ii) Atlas and axis

(iii) Frontal and parietal

(iv) Knee

(v) Humerus and pectoral girdle

(a) ( P-ii) (Q-iv) (R-ii)(S-v)

(b) ( P-ii) (Q -iii) ( R- i) (S - v)

(c) (P-iii)(Q-v) (R-iv)(S-ii)

(d) (P-v) (Q -iv) ( R- ii) (S - i)

132. Major protein in the thick filament of skeletal muscle fibre is (MP PMT 2011)

(a) Tropomyosin

(b) Myosin

(c) Actin

(d) Troponin

133. True joints are (Wardha 2005)

(a) Synchondroses

(b) Syndesmoses

(c) Synovial

(d) Ball and socket

\* Question number 134 to 144 are A and R type question option for question number 134 to 144

**a. Both A and R are true and R is correct explanation of A**

**b. Both A and R are true but R is not correct explanation of A**

**c. A is true but R is false**

**d. A is false but R is true**

134. Statement (A) : Organisms change their habitat or place.

Reason (R) : Autonomous movement like running, walking, swimming etc. are called locomotion.

(a)

(b)

(c)

(d)

135. Statement (A) : Pseudopodia of Amoeba is helpful in food capturing and for changing place.

Reason (R) : In Amoeba movement is occurred by the effect of pseudopod. Which produces through flow of protoplasm.

(a)

(b)

(c)

(d)

136. Statement (A) : In skeleton muscle horizontal belts are arranged in line.

Reason (R) : Skeleton muscle is also called striated muscle.

(a)

(b)

(c)

(d)

137. Reason (R) : Non-striated muscles are innervated by autonomous nervous system.

Statement (A) : Non-striated muscle is also called involuntary muscle.

(a)

(b)

(c)

(d)

138. Statement (A) : The contraction of cardiac muscle is Quick, rhythmic, powerful and never get fatigue

Reason (R) : Intercalated disc is absence in cardiac muscle.

(a)

(b)

(c)

(d)

139. Reason (R) : Sarcomere reduce in length during muscle contraction.

Statement (A) : During muscle contraction protein of I-band slides over A-band.

(a)

(b)

(c)

(d)

## Questionbank Biology

140. Statement (A) : Human skeleton is made of by 206 bones  
Reason (R) : Human skeleton system is divided into axial skeleton and appendicular skeleton.  
(a) (b) (c) (d)
141. Statement (A) : In human 12 pairs of ribs are present.  
Reason (R) : The ribs have two articulation surfaces it is called bicephalic.  
(a) (b) (c) (d)
142. Statement (A) : Thoracic vertebrae, ribs and sternum makes a ribcage.  
Reason (R) : The ribcage protects heart, large blood vessels and lungs.  
(a) (b) (c) (d)
143. Statement (a) : The anterior region go glenoid cavity and humerus joint form joint of shoulder.  
Reason (R) : The joint of shoulder is ball and socket joint.  
(a) (b) (c) (d)
144. Statement (a) : The joints of skull are immovable.  
Reason (R) : The bones of skull are joint with each other by strong collagen fibres.  
(a) (b) (c) (d)

## Questionbank Biology

**ANSWER KEY**

1	d	41	b	81	c	121	a
2	d	42	a	82	c	122	d
3	a	43	a	83	a	123	c
4	d	44	a	84	c	124	d
5	d	45	a	85	a	125	d
6	d	46	c	86	b	126	b
7	d	47	a	87	b	127	a
8	d	48	a	88	d	128	d
9	d	49	a	89	d	129	d
10	b	50	a	90	d	130	c
11	a	51	a	91	c	131	d
12	d	52	a	92	d	132	c
13	c	53	a	93	c	133	a
14	d	54	a	94	b	134	a
15	a	55	a	95	b	135	b
16	d	56	b	96	d	136	a
17	d	57	a	97	a	137	c
18	d	58	a	98	c	138	c
19	d	59	c	99	c	139	b
20	d	60	c	100	a	140	b
21	a	61	d	101	b	141	b
22	b	62	b	102	d	142	a
23	d	63	b	103	d	143	a
24	b	64	c	104	c	144	a
25	b	65	d	105	b		
26	c	66	c	106	d		
27	d	67	c	107	b		
28	a	68	c	108	c		
29	a	69	d	109	c		
30	b	70	c	110	b		
31	b	71	d	111	d		
32	a	72	d	112	c		
33	d	73	d	113	d		
34	a	74	c	114	a		
35	a	75	d	115	a		
36	c	76	c	116	c		
37	b	77	b	117	a		
38	a	78	c	118	d		
39	d	79	c	119	c		
40	d	80	a	120	d		