



BIOLOGY

BOOKS - TRUEMAN BIOLOGY

LOCOMOTION AND MOVEMENTS

Multiple Choice Question

1. Striped muscle are

A. syncytial

B. uninucleate

C. spindle shaped

D. noen of these

Answer: A

 [Watch Video Solution](#)

2. Functional unit of skeletal muscle is called

A. Sarcolemma

B. Z-band

C. Sarcomere

D. Sarcoplasm

Answer: C

 [Watch Video Solution](#)

3. Sarcomere is the area between two

A. H-lines

B. A-lines

C. I-lines

D. Z-lines

Answer: D



Watch Video Solution

4. Statements

A-bands of the muscle are dark and contain myosin

I-band are the light bands and contain actin

During muscle contraction the A-band contracts

The part between the two Z-lines is called as saromere

The central part of thin filament, not over-lapped by thick filament is called H-zone of the above statements.

A. A,C,E are correct while, B,D are incorrect

B. A,B,C and E are correct while D is incorrect

C. A,B and D are correct while C and E are incorrect

D. A,B and C are correct while D and E are incorrect

Answer: C



Watch Video Solution

5. H-zones are found in

A. myofibril of unstriated muscle

B. myofibril of striated muscle

C. light band

D. none of the above

Answer: B



Watch Video Solution

6. Major protein in the thick filaments of skeletal muscle fibre is

A. actin

B. myosin

C. troponin

D. tropomyosin

Answer: B



Watch Video Solution

7. Myosin myofilaments are

- A. attached to the Z-disk
- B. absent from the H-zone
- C. found primarily in the I-band
- D. none of the above

Answer: D



Watch Video Solution

8. The largest muscle in the human body is

A. gluteus maximus

B. stapedius

C. sartorius

D. masseter

Answer: A



Watch Video Solution

9. Smallest muscle in the human body is

A. stapes

B. sartorius

C. stapedius

D. spinal muscle

Answer: C



Watch Video Solution

10. Quadriceps and gastrocnemius muscles lie in

A. lower limb

B. hands

C. wrist

D. shoulder

Answer: A



Watch Video Solution

11. Smooth muscles are

A. involuntary, spindle shaped, uninucleated,
unbranched

B. voluntary, multinucleate and cylindrical

C. involuntary, cylindrical, multinucleate

D. voluntary, branched, uninuclear

Answer: A



Watch Video Solution

12. Largest smooth muscle is present in

- A. leg
- B. thigh
- C. heart
- D. uterus of pregnant woman

Answer: D



Watch Video Solution

13. Striated muscles contract because of

- A. sliding of myosin filaments on actin filaments
- B. sliding of actin filaments on myosin filaments

C. myosin filaments coming close to each other

D. actin filaments sliding over one another

Answer: B



Watch Video Solution

14. During muscle contraction

A. size of I-band increases

B. diameter of fibre increases

C. size of A-bands remains same

D. Size of H-zone becomes larger

Answer: C

 [Watch Video Solution](#)

15. When a skeletal muscle shortens during contraction, which of these statements is false?

- A. The I-bands shorten
- B. The A-bands shorten
- C. The H-bands shorten
- D. The sarcomeres shorten

Answer: B

 [Watch Video Solution](#)

16. Which statement is correct for muscle contraction?

- A. Length of H-zone decreases
- B. Length of A-band decreases
- C. Length of two Z-line increases
- D. Length of I-band remains constant

Answer: A

 [Watch Video Solution](#)

17. During contraction of skeletal muscle Ca^{2+} bind to

- A. actin
- B. troponin
- C. tropomyosin

D. myosin ATPase

Answer: B

 [Watch Video Solution](#)

18. The long protein molecule, which masks the active sites on the f-actin is

A. myosin

B. troponin

C. tropomyosin

D. light meromyosin

Answer: C





Watch Video Solution

19. Which of these statements about the molecular structure of myofilaments is true?

A. ATPase is found on troponin

B. Tropomyosin has a binding site for Ca^{2+}

C. Troponin bind to the rodlike portion of myosin

D. The head of the myosin molecule binds to an active site on actin

Answer: D



Watch Video Solution

20. Which yield ATP during muscle contraction?

- A. Oxygen
- B. Myoglobin
- C. Cholesterol
- D. Creatine phosphate

Answer: D

 [Watch Video Solution](#)

21. The lactic acid generated during muscle contraction is converted to glycogen mainly in

- A. liver

B. muscle

C. adrenals

D. pancreas

Answer: A



Watch Video Solution

22. During fatigue

A. muscle fails to relax

B. muscle fails to be stimulated

C. blood circulation in muscles stops

D. motor nerve does not respond to external stimulus

Answer: B



Watch Video Solution

23. Stimulus several times greater than threshold stimulus is provided to muscle fibre. It will

- A. undergo tetany
- B. contract slightly
- C. contract forcefully
- D. contract with same force

Answer: D



Watch Video Solution

24. Muscle activity of our body

- A. decreases BMR
- B. decreases venous return
- C. increases body temperature
- D. reduces blood and lymph flow

Answer: C

 [Watch Video Solution](#)

25. The muscles which contract to produce opposite movements at the same joint are called

- A. synergists

B. antagonists

C. prime movers

D. none of these

Answer: B



Watch Video Solution

26. Which of the following are not antagonistic muscles?

A. Flexor and extensor

B. Pronator and supinator

C. Abductor and adductor

D. Protractor and supinator

Answer: D



Watch Video Solution

27. Biceps and triceps surround

A. ulna

B. femur

C. radius

D. humerus

Answer: D



Watch Video Solution

28. The muscles which on contraction rotates the forearm the make palm face upward and forward is

- A. pronator
- B. supinator
- C. abductor
- D. adductor

Answer: B

 [Watch Video Solution](#)

29. When body part moves towards the median axis, it is called

A. adductor

B. pronator

C. abductor

D. supinator

Answer: A



Watch Video Solution

30. For the elbow joint, triceps is

A. flexor

B. extensor

C. adductor

D. retractor

Answer: B



Watch Video Solution

31. Spreading the fingers apart is

A. rotation

B. flexion

C. abduction

D. depression

Answer: C



Watch Video Solution

32. Red muscle fibres are rich in

- A. cholesterol
- B. lysosomers
- C. microsomes
- D. mitochondria

Answer: D



Watch Video Solution

33. Which of the following statements is not true?

- A. White muscle fibres are rich in mitochondria

B. Muscles of eyeball movements are white fibres

C. Red muscle fibres are slower in contraction rate

D. White muscle fibres depend mainly on anaerobic glycolysis

Answer: A



Watch Video Solution

34. Red muscle are rich in

A. relaxin

B. myosin

C. lactic acidi and acetic acid

D. myoglobin and cytochrome

Answer: D



Watch Video Solution

35. A single isolated contraction of the muscle fibre is called

A. twitch

B. fatigue

C. tetanus

D. contracture

Answer: A





[Watch Video Solution](#)

36. A sustained state of contraction caused by rapid succession of many stimuli is

- A. twitch
- B. fatigue
- C. tetanus
- D. contracture

Answer: C



[Watch Video Solution](#)

37. Which of the following is a short bone?

A. carpal

B. patella

C. Sternum

D. Humerus

Answer: A



Watch Video Solution

38. Which of the following is a flat bone?

A. Tibia

B. Tarsal

C. Malleus

D. Sternum

Answer: D

 [Watch Video Solution](#)

39. Smallest bone in the body of human is

A. Nasal

B. stapes

C. patella

D. palatine

Answer: B

 [Watch Video Solution](#)

40. Long bones of mammals provide

- A. support only
- B. support and produce RBCs only
- C. support and produce WBCs only
- D. support and produce RBCs and WBCs

Answer: D



Watch Video Solution

41. Ends of the long bones are covered by

- A. tendons

B. cartilage

C. ligaments

D. blood cells

Answer: B



Watch Video Solution

42. Which one is formed by the ossification of tendon?

A. dermal bone

B. cartilage bone

C. sesamoid bone

D. membrane bone

Answer: C



Watch Video Solution

43. Which one is formed by the ossification of tendon?

A. Tibia

B. patella

C. Trapezoid

D. Calcaneum

Answer: B



Watch Video Solution

44. Total number of bones in the adult human is

A. 206

B. 406

C. 106

D. 306

Answer: A



Watch Video Solution

45. Which of these is a part of appendicular skeleton?

A. Ribs

B. Cranium

C. Clavicle

D. Vertebrae

Answer: C



Watch Video Solution

46. Number of bones in human appendicular skeleton is

A. 80

B. 126

C. 120

D. 142

Answer: B

 [Watch Video Solution](#)

47. Find out the correct order of number of bones in the parts of skull such as cranial bones, facial bone, hyoid bone and middle ear bones respectively

A. 14, 8, 1 and 3

B. 3,8,14 and 1

C. 8,14,1 and 3

D. 14,8,3 and 1

Answer: C

 [Watch Video Solution](#)

48. Cheek bones are

A. parietals

B. ethomoids

C. lacrimals

D. zygomatic

Answer: D



Watch Video Solution

49. Foramen magnum is present at

A. base of skull

B. base of brain

C. base of medulla

D. apex of vertebral column

Answer: A



Watch Video Solution

50. The only movable bone in the skull is

A. mandible

B. maxilla

C. ethmoid

D. none of these

Answer: A

 [Watch Video Solution](#)

51. Lower jaw of man is made up of

- A. 1 bone
- B. 2 bones
- C. 3 bones
- D. no bones, only muscles

Answer: A

 [Watch Video Solution](#)

52. Hyoid bones is located at the

- A. front of the skull
- B. behind the skull
- C. top of the buccal cavity
- D. floor of the buccal cavity

Answer: D

 [Watch Video Solution](#)

53. The number of vertebrae present in cervical, thoracic, lumbar, sacral and coccyx regions are respectively

- A. 7,12,5,1,1
- B. 7,5,1,12,1
- C. 12,7,5,1,1,

D. 1,7,5,12,1

Answer: A

 [Watch Video Solution](#)

54. Consider the following statements

A. In man, vertebral column has 33 vertebrae organized as 28 bones.

B. Pelvic girdle is made up of two fused bones only.

C. Osteoporosis is characterized by microarchitectural deterioration of the bone.

A. A alone is correct

B. B alone is correct

C. C alone is correct

D. A alone is incorrect

Answer: C



Watch Video Solution

55. In man, coccygeal bone is formed by the fusion of.....
vertebrae.

A. 3

B. 4

C. 5

D. 6

Answer: B



Watch Video Solution

56. Which of the following form thoracic cage of man?

- A. Ribs and sternum
- B. Ribs and thoracic vertebrae
- C. Ribs, sternum and lumber vertebrae
- D. Ribs, sternum and throraic vertebrae

Answer: D



Watch Video Solution

57. Manubrium is a part of

- A. Skull
- B. Pelvic girdle
- C. Thoracic
- D. Pectoral girdle

Answer: C



Watch Video Solution

58. Ribs attached to sternum are

- A. first seven pairs
- B. all ten ribs

C. first ten rib pairs

D. first five rib pairs.

Answer: A



Watch Video Solution

59. Floating ribs of thoracic cage are

A. 1st to 7th pair

B. 8th to 9th pair

C. 8th to 10th pair

D. 11th to 12th pair

Answer: D

 [Watch Video Solution](#)

60. Which of the these statements concerning ribs is true?

- A. There are five pairs of floating ribs
- B. Floating ribs do not attach to vertebrae
- C. The head of the rib attaches to the manubrium of sternum
- D. The true ribs attach directly to the sternum with costal cartilage

Answer: D

 [Watch Video Solution](#)

61. Which one is a part of pectoral girdle?

A. 1) Ilium

B. 2) Sternum

C. 3) Acetabulum

D. 4) Glenoid cavity

Answer: D



Watch Video Solution

62. Collar bone' is

A. patella

B. scapula

C. clavicle

D. coracoid

Answer: C



Watch Video Solution

63. The point where the scapula and clavicle articulate is

A. glenoid cavity

B. coracoid process

C. trochlea

D. acromion process

Answer: D

64. When comparing the pectoral girdle with the pelvic girdle which of the these statements is true?

- A. The pelvic girdle is more firmly attached to the body than the pectoral girdle
- B. The pectoral girdle has the limbs more securely attached than the pelvic girdle
- C. The pelvic girdle allows greater mobility than the pectoral girdle
- D. The pectoral girdle has greater mass than the pelvic girdle

Answer: A



Watch Video Solution

65. How many bones are present in our arms?

A. A)32

B. B)60

C. C)45

D. D)25

Answer: B



Watch Video Solution

66. Number of wrist bones is

A. A)8

B. B)9

C. C)7

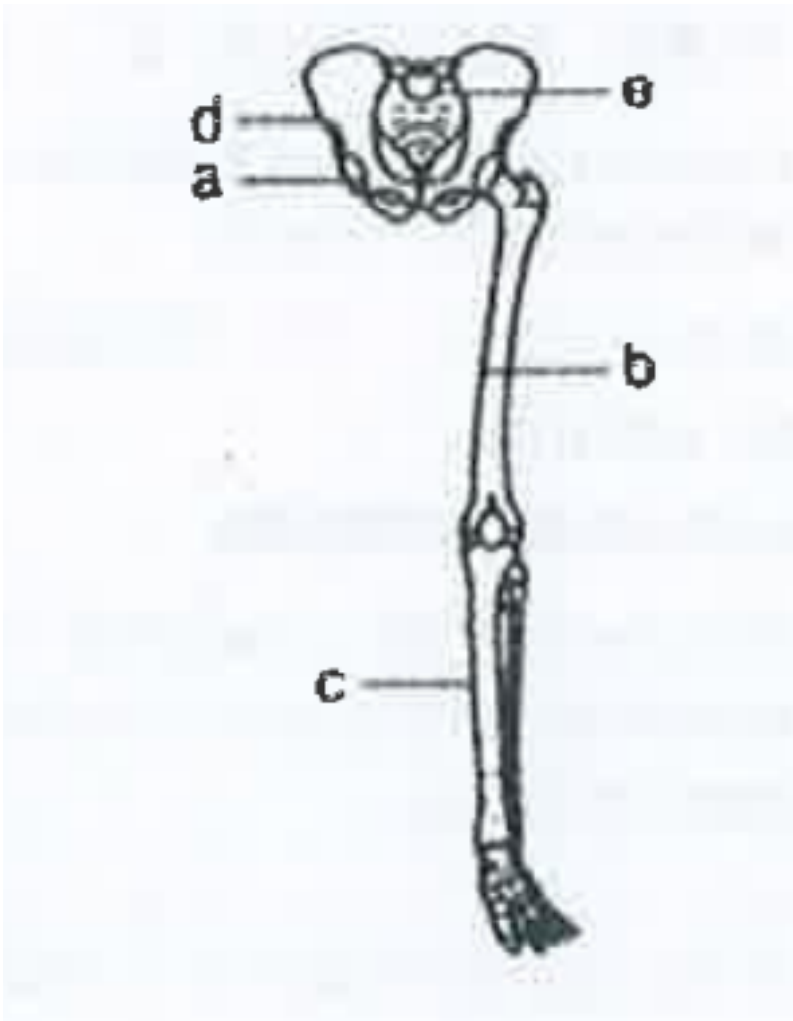
D. D)6

Answer: A



Watch Video Solution

67. Consider the diagram given below



Parts as (a), (b), (c), (d) and e respectively indicate

A. Ilium, femur, tibia, pubis, and sacrum

B. Pubis,femur,tibia,ilium and sacrum

C. Pubis,tibia,femur,ilium and secrum

D. Pubis, femur, ilium tibia, and sacrum

Answer: B

 [Watch Video Solution](#)

68. The total number of bones in the hindlimb of a man is

A. 14

B. 21

C. 24

D. 30

Answer: D



Watch Video Solution

69. The bone of the foot to which the tibia is attached is

A. talus

B. metatarsals

C. phalangers

D. calcaneus

Answer: A



Watch Video Solution

70. Digital formula of both limbs in man is

A. 2,3,3,4,3

B. 2,3,3,3,3

C. 3,3,3,3,2

D. 2,2,3,3,3

Answer: B



Watch Video Solution

71. Immovable joint is

A. synarthrodial

B. amphiarthrodial

C. diarthrodial

D. all of these

Answer: A



Watch Video Solution

72. The type of joint between the human skull bones is

A. hinge

B. fibrous

C. synovial

D. cartilaginous

Answer: B

 [Watch Video Solution](#)

73. Sutural joints are found between

- A. parietals of skull
- B. thumb and metatarsal
- C. humerus and radio-unla
- D. glenoid cavity and pectoral girdle

Answer: A

 [Watch Video Solution](#)

74. Which of the following is a cartilaginous joint?

- A. Suture
- B. Elbow joint
- C. Synovial joint
- D. Pubic, symphysis

Answer: D

 [Watch Video Solution](#)

75. The joint where synovial cavity is absent

- A. carpals
- B. finger and toes in males
- C. pubic symphysis in females

D. femur and pelvis in females

Answer: C

 [Watch Video Solution](#)

76. What is the joint between sternum and ribs in human.

- A. Fibrous joint
- B. gliding joint
- C. angular joint
- D. cartilaginous joint

Answer: D

 [Watch Video Solution](#)

77. Articular cartilage of synovial joint is

- A. fibrocartilage
- B. elastic cartilage
- C. hyaline cartilage
- D. all of these

Answer: C

 [Watch Video Solution](#)

78. Synovial joint occurs between

- A. pubic bones

B. centra of two vertebrae

C. two skull bones

D. humerus and ulna

Answer: D



Watch Video Solution

79. In locomotion, movement between two structures of which one of the following sets takes part in man?

A. skull and atlas

B. Humerus and ulna

C. Femur and pelvic girdle

D. Humerus and pectoral girdle

Answer: C



Watch Video Solution

80. Joint between Incus & stapes is : —

- A. hinge joint
- B. gliding joint
- C. pivotal joint
- D. ball and socket joint

Answer: D



Watch Video Solution

81. Hinge joint is present in our body between

- A. thumb and trapezium
- B. humerus and scapula
- C. humerus and radio-unla
- D. first and second vertebra

Answer: C



Watch Video Solution

82. Saddle joint occurs between

- A. carpal and first metacarpal
- B. femur and pelvic girdle

C. all the vertebrae

D. phalangers

Answer: A



Watch Video Solution

83. The articulation of odontoid process of axis and atlas is an exmple of

A. pivot joint

B. synovial joint

C. ball and socket joint

D. none of these

Answer: A



Watch Video Solution

84. Which of the these joint is correctly matched with the type of joint?

- A. Atlas to occipital condyle - Pivot
- B. Tarsals to metatarsals - saddle
- C. Tibia to talus - Hinge
- D. Femur to coxal bone - Ellipsoid

Answer: C



Watch Video Solution

85. An example of gliding joint is

- A. femur and fibiofibula
- B. humerus and glenoid cavity
- C. zygapophyses of adjacent vertebrae
- D. occipital condyle and atlas

Answer: C

 [Watch Video Solution](#)

86. Which of the following permits movement of articulating bones around two axes?

- A. Hinge joint

B. Ball & socket joint

C. Sutures

D. Ellipsoid joint

Answer: D



Watch Video Solution

87. In old age, stiffness of joints is due to the

A. higher viscosity of synovial fluid

B. decreases in synovial fluid

C. increase in synovial fluid

D. none of above

Answer: B



Watch Video Solution

88. Gout is a disease that affects the joints and leads to arthritis. It is associated with an abnormality of

- A. fat metabolism
- B. purine metabolism
- C. protein metabolism
- D. pyrimidine metabolism

Answer: B



Watch Video Solution

89. Study of following

a. The accumulation of pyruvic acid in the muscle cause fatigue

B. ATP is resynthesized in the muscle by the phosphorylation of ADP by a phosphagen.

C. Cori and Cori cycle occurs in the liver

D. The phosphagen in the vertebrate muscle is arginine phosphate.

The correct set of answers for muscle contraction is

A. A and D

B. B and D

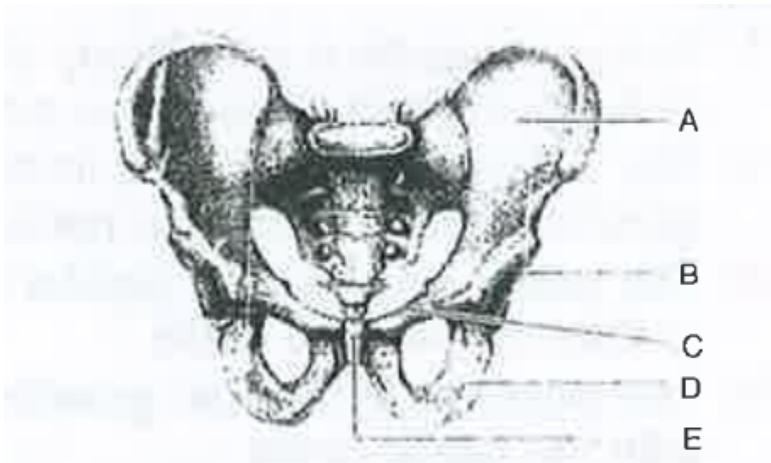
C. C and D

D. B and C

Answer: D

 [Watch Video Solution](#)

90. In the pelvic girdle of man A,B,C,D and E respectively represent



A. A = Pubis, B = Acetabulum, C= Ilium,

D = Ischium, E = Public symphysis

B. A = Ilium, B = Acetabulum, C = Pubis

D= Ischium E = Pubic Symphysis

C. A = Ischium, B = Acetabulum, C = pubis,

D = Ilium, E = Pubic symphysis

D. A = Ilium, B = Pubis, C = Acetabulum

D = Pubic symphysis, E = Ischium

Answer: B



Watch Video Solution

91. It is an outcome of irregularities in metabolism of nitrogenous waste

A. 1)Osteoporosis

B. 2)Osteoarthritis

C. 3)Gouty arthritis

D. 4)Rheumatoid arthritis

Answer: C



Watch Video Solution

92. Upon stimulation of skeletal muscles, calcium is immediately made available for binding to troponin from

A. bone

B. blood

C. lymph

D. sarcoplasmic reticulum

Answer: D



Watch Video Solution

93. This facial bone is unpaired

- A. 1)vomer
- B. 2)nasal
- C. 3)lacrimial
- D. 4)palatine

Answer: A



Watch Video Solution

94. The longest bone of the human body is

- A. tibia
- B. incus
- C. femur
- D. vertebra

Answer: C



Watch Video Solution

95. Skeletal muscles are controlled by

- A. autonomic nerves
- B. somatic nerves

C. sympathetic nerves

D. parasympathetic nerves

Answer: B



Watch Video Solution

96. Which one of the following is wrongly matched?

A. 1)Smooth muscle-Involuntary muscle

B. 2)Troponin - Protein of myosin filament

C. 3)Tendon - Connective tissue

D. 4)Myosin - contractile protein

Answer: B

 [Watch Video Solution](#)

97. The generation of excitation-contraction coupling involves all the following events except

- A. hydrolysis of ATP to ADP
- B. Conformational change in troponin
- C. releases of calcium from troponin
- D. formation of cross linkages between actin and myosin

Answer: C

 [Watch Video Solution](#)

98. In human beings the cranium is formed by

- A. ten bones of which two are paired
- B. eight bones of which two are paired
- C. fourteen bones of which six are paired
- D. eight bones of which three are paired

Answer: B

 [Watch Video Solution](#)

99. The number of occipital condyles in man is/are

- A. one
- B. two
- C. three

D. four

Answer: B



Watch Video Solution

100. Match the following and choose the correct option

Types of synovial joints	Bones involved
Ball and socket	1. Carpals and metacarpal of thumb
Hinge	2. Atlas and axis
Pivot	3. Frontal and parietal
Saddle	4. Knee
	5. Humerus and pectoral girdle

A. A = 1, B = 3, C = 4, D = 5

B. A = 5, B = 4, C = 2, D = 1

C. A = 5, B = 4, C = 3, D = 1

D. A = 1, B = 2, C = 5, D = 4

Answer: B



Watch Video Solution

101. The ellipsoidal joint is found in

A. hip

B. knee

C. shoulder

D. radius and scaphoid of hand

Answer: D



Watch Video Solution

102. Which of the following statements about the mechanism of muscle contraction are correct ?

A. (i) Acetylcholine is released when the neural signal reaches the motor end plate.

B. (ii) Muscle contraction is initiated by a signal sent by CNS via sensory neuron.

C. (iii) During muscle contraction, isotropic band gets elongated.

D. (iv) Repeated activation of the muscles can lead to pyruvic acid accumulation.

Answer: A



Watch Video Solution

103. Actin binding sites are located over

- A. troponin
- B. tropomyosin
- C. meromyosin
- D. both troponin and tropomyosin

Answer: C



Watch Video Solution

104. The scapula is a large triangular flat bone situated in the dorsal part of the thorax between

- A. second and fifth ribs
- B. third and sixth ribs
- C. third and eighth ribs
- D. second and seventh ribs

Answer: D

 [Watch Video Solution](#)

105. The coxal of the pelvic girdle is formed by the fusion of

- A. ilium and scapula
- B. clavicle and pubis
- C. scapula and clavicle

D. ilium, ischium and pubis

Answer: D



Watch Video Solution

106. Which one of the followign pairs of substances and function is not correctly matched?

A. actin : slides past myosin causing contraction

B. Calcium : Triggers enzymatic action of Myosin

C. ATPase : Enzyme that splits ATP

D. ATP : Supplies energy for breaking Actomyosin

Answer: B





107. Read the following statements

(i) In cardiac muscle fibres sarcoplasmic reticulum is poorly formed

(ii) Blood supply is scanty in case of smooth muscle fibres

(iii) Tropomyosin occurs in actin filaments in the form of complexes which are arranged over actin fibres and represent sites where myosin binds to actin.

(iv) Salts of citrate and oxalates act as anticoagulants as they precipitate Ca^{2+}

Select the correct statements

A. (i),(ii),(iii)

B. (i),(iii),(iv)

C. (ii),(iii),(iv)

D. (i),(ii),(iv)

Answer: D



Watch Video Solution

108. Select the wrong match

A. Ring of trachea - Hyaline cartilage and bronchi

B. Nasal septum - White fibrous

C. Public symphysis - White fibrous cartilage

D. Eustachian tube - Elastic cartilage

Answer: B

109. Read the following statements

(i) In adults most of the RBCs are produced in the marrow of long bones.

(ii) In camel and Llama RBCs are oval.

(iii) Foetal RBCs are nucleated and contain a different form of haemoglobin as compared the adults.

(iv) Lymphocytes are 6- 70% of the total leucocytic count

Select the correct statements

A. (i),(ii),(iii)

B. (i) and (ii)

C. (ii) and (iii)

D. (ii),(iii) and (iv)

Answer: C



Watch Video Solution

110. Go through the following statements

During muscle contraction, the width of A-band remains constant while I-band shortens.

During muscle contraction, the Ca^{2+} released from the SR bind to the troponin component of thin filament

The process of muscle contraction is faster in smooth muscle as they have a well developed sarcoplasmic reticulum.

The red muscle fibres have abundant mitochondria, low glycogen and poorly formed sarcoplasmic reticulum.

A. (i),(ii), and (iii)

B. (i),(ii) and (iv)

C. (i),(iii) and (iv)

D. All are correct

Answer: B



Watch Video Solution

111. Go through the following matches

(i) Gluteal tuberosity - Tibia

(ii) Medial malleolus - Fibula

(iii) Greater Trochanter - Femur

Which of these are correct?

A. (i) only

B. (iii) only

C. (i) and (ii)

D. (ii) and (iii)

Answer: B



Watch Video Solution

112. Go through the following matches

(i) Pisiform - Bone in distal row of wrist

(ii) Lateral and - Femur medial condyles

(iii) Ethmoid - Pneumatic bone

Which of these are correct ?

A. (i) and (ii)

B. (ii) and (iii)

C. only (iii)

D. All are correct

Answer: B



Watch Video Solution

113. Go through the following statement

(i) Thoracic vertebrae have got foramina transversaria in their transverse processes.

(ii) Atlas permits up and down or nodding movement of skull on it.

(iii) The body of human vertebra is amphiplatyan in nature.

(iv) Without exception, all mammals have seven cervical

vertrae

Which of these are correct?

A. (i),(ii), and (iii)

B. (ii) and (iii)

C. (ii),(iii),(iv)

D. (i),(iii),& (iv)

Answer: B



Watch Video Solution

114. Go through the following matches

(i) wrist joint - anuglar joint

(ii) Interphalangeal joint - Angular joint

(iii) Metacarpophalangeal - Hinge joint

(iv) Carpal bones - Gliding joint

Which of these are correct?

A. (i),(ii) and (iii)

B. (ii), (iii) and (iv)

C. (i) and (iv)

D. (i), (iii) and (iv)

Answer: C



Watch Video Solution

115. Select the wrong match

A. Epiphyseal plate - Hyaline fibrous cartilage

B. Intervertebral disc - White fibrous cartilage

C. Pinna - Elastic cartilage

D. Xiphisternum - Elastic cartilage

Answer: D

 [Watch Video Solution](#)

116. Read the following statements

- (i) first seven pairs of ribs are called true ribs or vertebrochondral ribs.
- (ii) A rib has two articulation surfaces on its dorsal end and is hence called bicephalic.
- (iii) Pelvic girdle consists of two coxal bones
- (iv) Xiphoid process forms the lowermost and manubrium

forms the uppermost part of the sternum.

Which of these are correct?

A. (i),(ii) and (iii)

B. (ii),(iii) & (iv)

C. (i),(iii) and (iv)

D. All are correct

Answer: B



Watch Video Solution

117. Go through the following matches

(i) Gluteus maximus - Chief extensor of knee

(ii) Hamstrings - Flexor of knee

(iii) Serratus anterior - Boxer's muscle

(iv) Deltoid - Flexor's shoulder joint

Which of these are correct?

A. (i) and (iii)

B. (ii) and (iii)

C. (i),(iii) and (iv)

D. (ii),(iii) (iv)

Answer: B



Watch Video Solution

118. Given below are the following statements regarding actin

(i) Is the main constituent of light band

(ii) Forms the Anisotropic band on its own

(iii) Are the thicker filaments

Are a part of the H zone.

Choose the correct option

A. (i),(ii) and (iii) are true

B. (i) and (iii) are true

C. (ii),(iii) and (iv) are false

D. All are false

Answer: C



Watch Video Solution

119. Read the following statements regarding muscle contraction

(i) One ATP utilised for making and breaking of the cross bridge.

(ii) The sarcomere lies between 2 Z-lines

(iii) Tropomyosin blocks the active sites in resting stage

(iv) Ca^{++} ions help in unmasking active sites on actin

Choose the correct option

A. Only (i) is false

B. Only (ii) and (iii) are true

C. Only (iv) is false

D. Only (ii) is false

Answer: B



Watch Video Solution

120. Match list-I and list-II, select the correct answer using the codes given below the lists.

List-I (Constrictile proteins)

A. Mysoin

B. Actin

C. Troponin

D. Tropomyosin

List-II (Functions)

1. Stabilizes F-actin

2. Calcium binding

3. Sliding

4. ATPase activity

A. 3, 4, 1, 2

B. 4, 3, 2, 1

C. 4, 3, 1, 2

D. 3, 4, 2, 1

Answer: B



Watch Video Solution

121. Which of the following statements is consistent with smooth muscle architecture?

A. The presence of deep, invaginating. T-tubules

B. Actin and myosin organized into visible striations

C. Multicellular units of muscle tissue that function voluntarily

D. Multiunit muscle cells that are active during GI peristalsis

Answer: D



Watch Video Solution

122. Red muscle fibres are heavily dependent on which of the following in order to function properly?

- (i) Oxygen concentration
- (ii) ATP levels
- (iii) Intracellular glucose storage

A. I and II only

B. II and III only

C. III only

D. I, II and III

Answer: A



Watch Video Solution

123. Go through the following statements

(i) Sigmoid notch is present between condyloid process and coronoid process of mandible

(ii) The thoracic vertebrae are the strongest and the largest of all the vertebrae

(iii) The atlas permits up and down or nodding movement of skull on it.

(iv) The body of axis bears an odontoid process.

Which of these are correct?

A. (i),(ii) & (iii)

B. (i),(iii) & (iv)

C. (i) and (iii)

D. (iii) and (iv)

Answer: C



Watch Video Solution

124. Read the following matches carefully

(i) Greater sciatic notch - Innominate bone

(ii) Obturator foramen - Innominate bone

(iii) Acromion process - Humerus

Which of these are correct?

A. (i) and (ii)

B. (ii) and (iii)

C. (i) and (iii)

D. All are correct

Answer: A



Watch Video Solution

125. Read the following matches carefully

- (i) Olecranon fossa - Ulna
- (ii) Greater tuberosity - Humerus
- (iii) Foramen magnum - Skull

Which of these are correct?

- A. (i) and (ii)
- B. (ii) and (iii)
- C. (i) and (iii)
- D. All are correct

Answer: B



Watch Video Solution

126. Go through the following matches

- (i) Acetabulum - Hip bone
- (ii) Ischial tuberosity - Hip bone
- (iii) Maxilla - Check bone

Which of these are correct?

- A. (i) and (ii)
- B. (ii) and (iii)
- C. (i) and (iii)
- D. All are correct

Answer: A



Watch Video Solution

127. Go through the following matches

(i) Trochlear notch - Ulna

(ii) Capitulum - Radius

(iii) Symphysis pubis - Hip bone

Which of the these are correct?

A. (i) and (ii)

B. (i) and (iii)

C. (ii) and (iii)

D. All are correct

Answer: B



Watch Video Solution

128. Go through the following matches

(i) Calcaneum - Largest bone of the foot

(ii) Intervertebral - Cartilaginous joint discs

(iii) Lateral malleolus - Femur

Which of these are correct?

A. (i) and (ii)

B. (ii) and (iii)

C. (i) and (iii)

D. All are correct

Answer: A



Watch Video Solution

129. Go through the following matches

(i) Pisiform - Sesamoid bone

(ii) Symphysis pubis - Cartilaginous joint

(iii) Cuboid - Tarsal bone

Which of these are correct?

A. (i) and (ii)

B. (ii) and (iii)

C. (i) and (iii)

D. All are correct

Answer: D



Watch Video Solution

130. Go through the following matches

(i) Atlanto occipital joint - Angular joint

(ii) Incus and stapes - Ball and socket

(iii) Talus - Bone of distal row of wrist

Which of these are correct?

A. (i) and (ii)

B. (ii) and (iii)

C. (ii) only

D. (i) only

Answer: A



Watch Video Solution

131. The myosin myofilament can be cleaved into a head and a tail piece. All of the following are accurate in describing the position of myosin in a sarcomere except

- (i) A-band is the length of a myosin myofilaments
- (ii) A-band contains thin and thick myofilaments
- (iii) A-band does not include actin-binding sites

A. I and II only

B. II and III only

C. III only

D. I, II and III

Answer: C



Watch Video Solution

132. Read the following matches

- (i) Glenoid cavity - Scapula
- (ii) Bicipital tuberosity - humerus
- (iii) Styloid Process - Ulna

Which of these are correct?

- A. (i) and (ii)
- B. (i) & (iii)
- C. (ii) and (iii)
- D. All are correct

Answer: B



Watch Video Solution

133. Match the following and mark the correct option

Column I

Column II

Fast muscle fibres

i. Myoglobin

Slow muscle fibres

ii. Lactic acid

Actin filament

iii. Contractile unit

Sarcomere

iv. I-band

A. A-(i),B-(ii),C-(iv),D-(iii)

B. A-(ii),B-(i),C-(iii),D-(iv)

C. A-(ii),B-(i),C-(iv),D-(iii)

D. A-(iii),B-(ii),C-(iv),D-(i)

Answer: C

 [Watch Video Solution](#)

134. Which one of the following is showing the correct sequential order of vertebrae in the vertebral column of human beings ?

- A. Cervical-lumbar-thoracic-lumber-occygeal
- B. Cervical-thoracic-sacral-lumbar-occygeal
- C. Cervial-sacral-thoracic-lumbar-coccygeal
- D. Cervical-thoracic-lumar-sacral-cocygeal

Answer: D

 [Watch Video Solution](#)

135. Which one of the following option is incorrect ?

- A. Hinge joint - between Humerus and pectoral girdle
- B. Pivot joint - between atlas and axis
- C. Gliding joint - between the carpals
- D. Saddle joint - between carpal and metacarpals or thumb

Answer: A



Watch Video Solution

136. Which one of the following statements is incorrect?

- A. 1) Heart muscles are striated and involuntary

B. 2)The muscles of hands and legs are striated and voluntary

C. 3)The muscles located in the inner walls of alimentary canal are striated and involuntary

D. 4)None of the above

Answer: C

 [Watch Video Solution](#)

137. Which one of the following statements is true:

A. Head of humerus bone articulates with acetabulum of pectoral girdle/

B. Head of humerus bone articulates with glenoid cavity of pectoral girdle

C. Head of humerus bone articulates with a cavity called acetabulum of pelvic girdle.

D. Head of humerus bone articulates with a glenoid cavity of pelvic girdle.

Answer: B



Watch Video Solution

138. Muscles with characteristic striations and involuntary are

A. Muscle in the wall of alimentary canal

B. Muscles of the heart

C. Muscles assisting locomotion

D. Muscles of the eye lids

Answer: B

 [Watch Video Solution](#)

139. Match the followings and mark the correct option

Column I

Column II

Sternum

i. Synovial fluid

Glenoid Cavity

ii. Vertebrae

Freely movable joint

iii. Pectoral girdle

Cartilagenous joint

iv. Flat bones

A. A-(ii),B-(i),C-(iii),D-(iv)

B. A-(iv),B-(iii),C-(i),D-(ii)

C. A-(ii),B-(i),C-(iv),D-(iii)

D. A-(iv),B-(i),C-(ii),D-(iv)

Answer: B



Watch Video Solution

140. Which one of the following is a sesamoid bone

A. Pelvis

B. patella

C. pterygoid

D. Pectoral girdle

Answer: B

141. Given below is a diagram of the bones of the left human limb as seen from front. It has certain mistakes in labelling.



Two of the wrongly labelled bones are

- A. Tibia and tarsals
- B. Femur and fibula
- C. Fibula and phalangers
- D. Tarsals and femur

Answer: C

142. Assertion. Inflammation of a skeletal joint may immobilize the movements of the joint.

Reason. Uric acid crystals in the joint cavity and ossification of articular cartilage lead to this.

- A. If both Assertion and Reason are true and the Reason is correct explanation of the Assertion,
- B. If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion,
- C. If Assertion is true statement but reason is false,
- D. If both Assertion and Reason are false statements .

Answer: A



Watch Video Solution

143. A cricket player is fast chasing ball in the field. Which one of the following group of bones is directly contributing in this movement ?

A. Femur, malleus, tibia, metatarsals

B. Pelvis, ulna, patella, tarsals

C. Sternum, femur, tibia, fibula

D. Tarsals, femur, metatarsals, tibia

Answer: D



Watch Video Solution

144. Find out the correct match regarding the structure of muscle fibre

Band Colour Filaments

- A. A - band Dark Contains only actin
- B. I-band Light Contains only actin
- C. A-band Light Contains actin and myosin both
- D. I-band Light Contains myosin only

Answer: B

 [Watch Video Solution](#)

145. ATPase enzyme needed for muscle contraction is located in

" " Or

The contractile protein of skeletal muscle involving ATPase activity is

- A. myosin
- B. actin
- C. actinin
- D. troponin

Answer: A



[Watch Video Solution](#)

146. An Acromion process is characteristically found in the

- A. Skull of frog

- B. sperm of mammals
- C. pelvic girdle of mammals
- D. pectoral girdle of mammals

Answer: D

 [Watch Video Solution](#)

147. Which of the following pairs is correctly matched ?

- A. Fibrous joint - between phalangers
- B. Cartilaginous joint - skull bones
- C. Gliding joint - between zygapophyses of the successive vertebrae

D. Hinge joint - between vertebrae

Answer: C

 [Watch Video Solution](#)

148. In human body , which one of the following is anatomically correct ?

- A. 1) Collar bones - 3 pairs
- B. 2) Salivary glands - 1 pairs
- C. 3) Cranial nerves - 10 pairs
- D. 4) Floating ribs - 2 pairs

Answer: D





Watch Video Solution

149. Which one of the following items gives its correct total number

- A. Cervical vertebrae in human - 8
- B. Floating ribs in human - 4
- C. Amino acids found in proteins - 16
- D. Types of diabetes - 3

Answer: B



Watch Video Solution

150. Which one of the following is correct pairing of a body part and the kind of muscle tissue that moves it

- A. Abdominal wall- Voluntary Smooth muscle
- B. Iris Involuntary smooth muscle
- C. Heart wall Involuntary smooth muscle
- D. Biceps of upper arm Smooth muscle fibres

Answer: B

 [Watch Video Solution](#)

151. Elbow joint is an example of

- A. gliding joint

B. ball and socket joint

C. Pivot joint

D. Hinge joint

Answer: D



Watch Video Solution

152. Which one of the is the correct matching of three items and their grouping category ?

A. 1)Actin, myosin, rhodopsin - Muscle

B. 2)Cytosine, uracil, thiamine - Pyrimidines

C. 3)Malleus, incus, cochlea - Ear ossicles

D. 4)ilium, ischium, pubis - Coxal bones of pelvic girdle

Answer: D



Watch Video Solution

153. Select the correct statement regarding the specific disorder of muscular or skeletal system.

- A. Osteoporosis - decrease in bone mass and higher chances of fractures with advancing age
- B. Myasthenia gravis - Auto immune disorder which inhibits sliding of myosin filaments
- C. Gout - inflammation of joints due to extra deposition of calcium

D. Muscular dystrophy - age related shortening of muscles

Answer: A



Watch Video Solution

154. Which one of the following pairs of structures is correctly matched with their correct description

A. Tibia and fibula - Both form parts knee joint

B. Cartilage and cornea - NO blood supply but do require oxygen for respiratory need

C. Shoulder joint - Gliding type of joint

D. Premolar and molars - 20 in all and 3 rooted

Answer: B



Watch Video Solution

155. Which one of the following is correct description of a certain part of a normal human skeleton ?

A. Parietal bone and the temporal bone of the skull are joined by fibrous joint

B. First vertebra is axis which articulates with the occipital condyles

C. The 9th and 10th pairs of ribs are called the following ribs

D. Glenoid cavity is a depression to which the thigh bone articulates

Answer: A



Watch Video Solution

156. The types of muscles present in our :

- A. Heart are involuntary and unstriated smooth muscles
- B. Intestine are striated and involuntary
- C. Thigh are striated and voluntary
- D. Upper arm are smooth muscle fibres fusiform in shape

Answer: C

 [Watch Video Solution](#)

157. Three of the following pairs of the human skeletal parts are correctly matched with their respective inclusive skeletal category and one pair is not matched. Identify the non-matching pair

- A. Sternum and Ribs Axial skeletal
- B. Clavical & Glenoid cavity Pelvic girdle
- C. Humerus and ulna Appendicular skeleton
- D. Malleus and stapes Ear ossicles

Answer: B

 [Watch Video Solution](#)

158. Which one of the following pairs of chemical substance, is correctly categorized ?

A. Troponin and myosin - Complex proteins in striated muscles

B. Secretin and rhodopsin - Polypeptide hormones

C. Calcitonin and thymosin - Thyroid hormones

D. Pepsin and prolactin - Two digestive enzymes secreted in stomach

Answer: A



Watch Video Solution

159. Acetabulum is associated with

- A. Pelvic girdle
- B. pectoral girdle
- C. cranium
- D. vertebrae

Answer: A



Watch Video Solution

160. Function of T-tubules in muscles is to

- A. secrete acetylcholine
- B. conduct impulses

C. support and muscle fibres

D. store calcium

Answer: B



Watch Video Solution

161. The wall of the internal organs such as blood vessels, stomach and intestine contains which type of muscle tissue?

A. smooth muscle fibre

B. cardiac muscle fibre

C. skeletal muscle fibre

D. Neural tissue

Answer: A



Watch Video Solution

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

- A. gout
- B. Rheumatoid Arthritis
- C. Osteoarthritis
- D. Rickets

Answer: A



Watch Video Solution

163. Which type of joint has a fluid filled cavity for significant role in locomotion ?

- A. Fibrous joints
- B. Cartilagenous joints
- C. Synovial joints
- D. All the above

Answer: C

 [Watch Video Solution](#)

164. Joint between the carpals is called

- A. Saddle joint

B. gliding joint

C. ball and socket joint

D. Hinge joint

Answer: B



Watch Video Solution

165. Major protein in the thick filaments of skeletal muscle fibre is

A. Myosin

B. Actin

C. tropomyosin

D. Troponin

Answer: A



Watch Video Solution

166. The number of cervical vertebrae in mammals including human beings are

A. 9

B. 8

C. 7

D. 10

Answer: C



Watch Video Solution

167. In resting stage, binding sites for myosin on actin filaments are masked by

- A. Troponin
- B. Light meromyosin
- C. Heavy meromyosin
- D. Calcium ions

Answer: A

 [Watch Video Solution](#)

168. How many lumbar vertebrae are present in the vertebral column of a human ?

A. A)26

B. B)7

C. C)12

D. D)5

Answer: D



Watch Video Solution

169. ATPase activity in muscle fibre lies with

A. light meromyosin

B. troponin

C. head of heavy meromyosin

D. short arm of heavy meromyosin

Answer: C

 [Watch Video Solution](#)

170. The example of pivot joint is

- A. hip joints
- B. metacarpophalangeal joints
- C. ankle joints
- D. radioulnar joints

Answer: D

 [Watch Video Solution](#)

171. The major function of the intervertebral discs is to

- A. absorb shock
- B. string the vertebrae together
- C. prevent injuries
- D. prevent hyperextension

Answer: A



Watch Video Solution

172. Clavicle articulates with Of scapula

- A. 1)acromion process

B. 2)glenoid cavity

C. 3)acetabulum cavity

D. 4)ball and socket joint

Answer: A



Watch Video Solution

173. The function of Na^+ and k^+ pump is to

A. Na^+ out and Cl^- in

B. Cl^- out and Na^+ in

C. Na^+ in and k^+ out

D. Na^+ out and K^+ in

Answer: D



Watch Video Solution

174. Energy is stored in the liver and muscles in the form of

" " Or

In the muscles carbohydrates are stored in the form of

A. 1)carbohydrate

B. 2)Fat

C. 3)protein

D. 4)glycogen

Answer: D



Watch Video Solution

175. Which of the following terms is used both for a part of kidney and a part of skeleton in the mammals?

A. cortex

B. pelvis

C. medulla

D. radius

Answer: B



Watch Video Solution

176. Axis vertebra is identified by

- A. signoid notch
- B. odontoid process
- C. deltoid
- D. centrum

Answer: B

 [Watch Video Solution](#)

177. Progressive degeneration of skeletal muscle, mostly due to genetic disorder occurs in

- A. Myasthenia gravis
- B. muscular dystrophy
- C. tetany

D. arthrits

Answer: B



Watch Video Solution

178. In human beings, the cranium is formed by

- A. eight bones by which two are paired
- B. fourteen bones of which six are paired
- C. ten bones of which two are paired
- D. twelve bones of which four are paired

Answer: A



Watch Video Solution

179. The matrix of bone and cartilage can be distinguished by the presence of

- A. Haversian canal
- B. lacuna
- C. chromatophores
- D. adipose cells

Answer: A



Watch Video Solution

180. The type of muscle present in the alimentary canal is

A. smooth muscle fibre

B. striped muscle fibre

C. cardiac muscle fibre

D. both (1) and (2)

Answer: D



Watch Video Solution

181. Which one has oxygen storing capacity

A. 1)myoglobin

B. 2)actin

C. 3)myosin

D. 4)fibrin

Answer: A

 [Watch Video Solution](#)

182. Osteomalacia is a deficiency disease of

- A. infants due to protein energy malnutrition
- B. adults due to protein energy malnutrition
- C. adults due to vitamin D deficiency
- D. infants due to vitamin K deficiency

Answer: C

 [Watch Video Solution](#)

183. The ball and socket joint is found in

A. skull

B. shoulder

C. knee

D. atlas and axis

Answer: B



Watch Video Solution

184. Select the correct statement with respect to locomotion in humans

- A. The vertebral column has 10 thoracic vertebrae
- B. The joint between adjacent vertebrae is a fibrous joint
- C. A decreased level of progesterone causes osteoporosis in old people
- D. Accumulation of uric acid crystals in joints causes their inflammation.

Answer: D



Watch Video Solution

185. The H-zone in the skeletal muscle fibre is due to

- A. the central gap between actin filaments extending through myosin filaments in the A-band
- B. extension of myosin filaments in the central portion of the A - band
- C. the absence of myofibrils in the central portion of A-band
- D. the central gap between myosin filaments in the A-band

Answer: A



Watch Video Solution

186. The characteristics and an example of a synovial joint in humans is

Characteristics	Examples
(1) fluid filled synovial cavity between two bones	joint between atlas and axis
(2) lymph filled between two bones, limited movement	gliding joint between carpals
(3) fluid cartilage between two bones, limited movements	Knee joint
(4) fluid filled between two joints, provides cushion	Skull bones

A. fluid filled synovial cavity between two bones joint
between atlas and axis

B. lymph filled between two bones, limited movement

gliding joint between carpals

C. fluid, cartilage between two bones, limited knee joint

D. fluid filled between two joint, provides cushion skull

bones

Answer: A

 [Watch Video Solution](#)

187. Select the correct matching of the type of the joint with the example in human skeletal system

A. Gliding joint - Between carpals

B. Cartilaginous joint - Between frontal and parietal

C. Pivot joint - between third and fourth cervical vertebrae

D. Hinge joint - between Humerus and pectoral girdle

Answer: A

 [Watch Video Solution](#)

188. Stimulation of muscle fibre by a motor neuron occurs at

A. The sarcoplasmic reticulum

B. The neuromuscular junction

C. The transverse tubules

D. The myofibril

Answer: B



Watch Video Solution

189. Sliding filament theory can be best explained as

- A. Actin and Myosin filaments shorten and slide pass each other
- B. Actin and Myosin filaments do not shorten but rather slide pass each other
- C. When myofilaments slide pass each other, myosin filaments shorten while Actin filaments do not shorten

D. When myofibrils slide past each other actin filament do not shorten

Answer: B



Watch Video Solution

190. Glenoid cavity articulates

- A. scapula with acromion
- B. clavicle with scapula
- C. humerus with scapula
- D. clavicle with acromion

Answer: C

 [Watch Video Solution](#)

191. Which of the following joints would allow no movement

- A. Fibrous joint
- B. Cartilaginous joint
- C. Synovial joint
- D. Ball and socket joint

Answer: A

 [Watch Video Solution](#)

192. Which of the following is not a function of the skeletal system

A. Production of erythrocytes

B. Storage of minerals

C. Production of body heat

D. Locomotion

Answer: C



Watch Video Solution

193. Lack of relaxation between successive stimuli in sustained muscle contraction is known as

A. Fatigue

B. Tetanus

C. Tonus

D. Spasm

Answer: B

 [Watch Video Solution](#)

194. Smooth muscles are

A. involuntary, fusiform, non-striated

B. voluntary, multinucleate, cylindrical

C. involuntary, cylindrical, striated

D. voluntary, spindle-shaped, uniunclate

Answer: A

 [Watch Video Solution](#)

195. Name the ion responsible for masking active sites for myosin for cross-bridge activity during muscle contraction

A. calcium

B. Magnesium

C. Sodium

D. Potassium

Answer: A



Watch Video Solution

196. Osteoporosis, an age related disease of skeletal system, may occur due to

- A. immune disorder affecting neuromuscular junction leading to fatigue.
- B. high concentration of Ca^{++} and Na^{+}
- C. decreased level of estrogen
- D. accumulation of uric acid leading to inflammation of joints

Answer: C



Watch Video Solution

197. Out of 'X' pairs of ribs in humans only 'Y' pairs are true ribs. Select the option that correctly represents values of X and Y and provides their explanation

A. $X = 12$, $Y = 17$ True ribs are attached dorsally to vertebral column and ventrally to the sternum.

B. $X = 12$, $Y = 15$ True ribs are attached dorsally to vertebral column and sternum on the two ends.

C. $X = 24$, $Y = 17$ True ribs are dorsally attached to vertebral column but are free on ventral side.

D. $X = 24$, $T = 12$ True ribs are dorsally attached to vertebral column but are free on ventral side

Answer: A



Watch Video Solution

198. The pivot joint between atlas and axis is a type of

- A. fibrous joint
- B. cartilaginous joint
- C. synovial joint
- D. saddle joint

Answer: C

 [Watch Video Solution](#)

199. Calcium is important in skeletal muscle contraction because it

- A. prevents the formation of bonds between the myosin cross bridges and the actin filaments
- B. Detaches the myosin head from the actin filament

C. activates the myosin ATPase by binding to it.

D. binds to troponin to remove the masking of active sites on actin for myosin

Answer: D



Watch Video Solution