

## **BIOLOGY**

## **BOOKS - NIKITA PUBLICATION**

# **SKELETON AND MOVEMENT**

Exercise

1. Motility of sperm is due to

A. Ciliary movement

- B. Flagellar movement
- C. Cyclosis
- D. Pseudopodial movement



- 2. Which of the following movement in man are directly concerned with locomotion
  - A. Perstaltic movement

- B. Contraction of heart
- C. ending of arm of elbow
- D. Rotation of head of femur in acetabulum



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**3.** The contraction of myofibril in skeletal muscle takes place

A. Between two I bands

- B. Between two z lines
- C. At the z line
- D. At the I band



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**4.** Which one of the following movement in mammalian skeleton represents the levering of the third order (force applied) at a point between fulcrum and point of resistance

- A. Biceps muscle flexing arm at elbow
- B. Triceps muscle extending arm at elbow
- C. Gastrocnemius muscle raisign weight of the body one toes
- D. Movement of head of femur in the acetabulum of pelvic girdle



**5.** The sliding theory of muscle contraction was given by

A. R.E. Davies

B. H.E. Huxley

C. A.F. Huxley

D. Both b and c

#### **Answer:**



- 6. Skeletal or striped muscles are
  - A. Multinucleated
  - B. Syncytial
  - C. Having large number of sarcosomes
  - D. All of the above



**7.** The Dark or A bands of skeletal muscle are known as

A. Isotropic bands

B. Anisotropic bands

C. Intercalated disc

D. Cross-bridges

#### **Answer:**



**8.** If the nerve supply alone is cut off from a muscle, it casues

A. Muscular hypertrophy

B. Muscular atrophy

C. Denervation atrophy

D. Duchenne dystrophy

#### **Answer:**



9.	Mitochondria	present	in	muscle	fibre	are
kn	own as					

- A. Sarcosome
- B. sarcolasmic reticulum
- C. Sarcoplasm
- D. None of these



- **10.** Antagonistic muscles are
  - A. Biceps and sphincters
  - B. Depressors and triceps
  - C. Adductors and dilators
  - D. Elevators and depressors



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11. The scientific study of movement is called

- A. Osteology
- B. Myology
- C. Kinesiology
- D. Sarcology



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

- A. Primary movers
- B. Antagonist
- C. Synergists
- D. None of these



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**13.** The muscle which one contraction rotates the fore arm to make palm face upward and forward.

B. Abductor					
C. Pronator					
D. Supinator					
Answer:					
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<b>14.</b> For the elbow joint, triceps is					
A. Flexor					

A. Adductor

- B. Extensor
- C. Adductor
- D. Retractor



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**15.** Which of the following statement is not true

A. Red muscle fibres are slower in contraction rate

B. White muscle fibres depends mainly on anaerobic glycolysis

C. White muscle fibres are rich in mitochondria

D. Muscles of eye ball movement are white fibres

### **Answer:**



**16.** Which of the following is related with muscle contraction

- A. Urea cycle
- B. Cori's cycle
- C. TCA cycle
- D. Calvin cycle

#### **Answer:**



**17.** Which ion is essential for muscle contraction

A. 
$$Na^+$$

B. 
$$K^+$$

C. 
$$CI^-$$

D. 
$$Ca^{++}$$

#### **Answer:**



**18.** Contraction of skeletal muscle is initiated by binding of calcium to

- A. Troponin
- B. Tropomyosin
- C. Myosin
- D. Actin

#### **Answer:**



- 19. During muscle contraction
  - A. Chemical energy is changed into electric energy
  - B. Chemical energy is changed into mechanical energy
  - C. Chemical energy is changed into physical energy
  - D. Mechanical energy is changed into chemical energy



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**20.** Apparatus used in recording muscle contraction is

- A. Kymograph
- B. Electroencephalograph
- C. Electrocardiograph
- D. All of the above



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**21.** The most abundant mineral in the muscle fibre is

- A. Sodium
- B. Postassium
- C. Calcium
- D. Magnesium



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### 22. Major constituent of muscle is

A. Carbohydrate

B. Fat

C. Protein

D. Minerals

#### **Answer:**

**23.** Which of the following is the contractile protein of a muscle.

A. Tubulin

B. Myosin

C. Tropomyosin

D. All of these

**Answer:** 



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**24.** Which of the following muscle draw the lower jaw, tongue and head backward.

A. Protractor

B. Retractor

C. Abductor

D. All of these

**Answer:** 



### 25. Ensheathing of muscle is called

- A. Fascia
- B. Peritoneum
- C. Ligament
- D. Tendon

#### **Answer:**



**26.** Name the connective tissue sheath which surrounds the muscle bundles

- A. Perimysium
- B. Epimysium
- C. Endomysium
- D. Sarcomere

### **Answer:**



**27.** Muscle responsible for the movement of the food in the stomach are

- A. Unstriated
- **B. Striated**
- C. Cardiac
- D. None of the above

#### **Answer:**



**28.** The dark bands in a myofibril are due to overlapping of

- A. Only thick bands
- B. Only thin bands
- C. Each thick and thin bands
- D. None of the above

#### **Answer:**



**29.** The functional unit of the contractile system in the striped muscleis

- A. Z-band
- B. A-band
- C. Myofibril
- D. Sarcomere

#### **Answer:**



**30.** In a relaxed fibril H-zone, a lighter region of

low density can be seen in the centre of

A. Anisotropic or A band

B. Isotropic or I band

C. Z-band

D. both a and c

#### **Answer:**



**31.** The total number of muscles in thebody of man is

- A. 409
- B. 439
- C. 539
- D. 639

#### **Answer:**



### 32. Striated muscle contracts by

- A. Sliding of actin filament upon myosin filament
- B. Sliding of myosin filament upon actin filament
- C. Pulling together of myosin filaments
- D. Pulling together of actin filaments

#### **Answer:**



# 33. Cori's cycle operate in

A. Muscle

B. Liver

C. Nerve

D. a and b

#### **Answer:**



## 34. Contraction of muscle is caused by

- A. Myosin
- B. Actin
- C. Actomyosin
- D. ATP

#### **Answer:**



**35.** The special contractile protein actin is found in

- A. Thick filament of A band
- B. Thin filament of I band
- C. Both a and b
- D. Whole of myofibril

#### **Answer:**



**36.** Which one of the following events is thought to be most closely related to the sliding process between the two types of filaments which bring about contraction of the fibril.

A. The liberation of acetylcholine at the motor end plates

B. Splitting of an ATP myosin complex

C. The influx of sodium ions through the

sarco lemma

D. Binding of calcium ions



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**37.** The immediate regeneration of ATP used up during muscle contraction is facilitated by

- A. Creatine phosphate
- B. Lactic acid
- C. Glycogen
- D. Glucose



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**38.** Assertion: Muscle contraction force increases with rise in strength of stimulus. Reason: This is due to increased contraction of individual muscle fibers with increase in stimulus strength.

A. Both (A) and (R) are true and (R) is the correct explanation of (A)

B. Both (A) and (R) are true but (R) is not a

correct explanation of (A)

C. (A) is true but (R) is false

D. Both (A) and (R) are false

## **Answer:**



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**39.** The time period between the beginning of electrical response and peak of tension recorded is

- A. Contraction time
- B. Latent period
- C. Refractory period
- D. Relaxation time



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**40.** What is sprain

A. More pulling of tendon

- B. Less pulling of tendon
- C. More pulling of ligament
- D. Less pulling of ligament



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**41.** When the length of muscles remain constant, but the tension increases sharply,it is known as

- A. Tetanus
- B. Convulsive contraction
- C. Isotonic contraction
- D. Isometric contraction



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**42.** A single isolated contraction of the muscle fibre is called

- A. Contracture
- B. Tetanus
- C. Twitch
- D. Fatigue



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**43.** A continued state of contraction caused by rapid successive of many stimuli is

B. Twitch				
C. Contracture				
D. Fatigue				
Answer:				
Watch Video Solution				
<b>44.</b> During fatigue				
A. Blood circulation in muscles stops				

A. Tetanus

- B. Muscles fail to relax
- C. Muscles fail to be stiumlated
- D. Motor nerve does not respond to muscles



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**45.** The contraction and relaxation phase of a muscle constitute

A. Beat					
B. Twitch					
C. Stimululs					
D. Condition					
Answer:					
Watch Video Solution					
<b>46.</b> Rigor mortis is due to fall of concentration					
in					

- A. Myosin
- B. Relaxin
- C. Actin
- D. ATP



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**47.** Which of the following pair acts as regulatory proteins in muscle contraction

- A. Actin and myosin
- B. Tropomyosin and troponin
- C. Myomesin and dystrophin
- D. a and b



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**48.** A muscle which assist primary mover is called

- A. Synergists
- B. Agonist
- C. Antagonistic
- D. None of the above



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**49.** A three unit protein which keep the active site of muscle masked is

C. Myosin D. Myomesin **Answer: Watch Video Solution** 50. Number of bones in human axial skeleton is

A. Tropomyosin

B. Troponin

- A. 120
- B. 126
- C. 80
- D. 206



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**51.** Comparative study of skull is called

A. Craniology

- B. Conchology
- C. Malacology
- D. Osteology



- **52.** The number of bones in the skull of man is
  - A. 14
  - B. 28

C. 20

D. 8

## **Answer:**



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# **53.** Cheek bones are

A. Lacrimals

B. Parietal

C. Ethmoid

D. Zygomatic

## **Answer:**



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**54.** Only movable bone in the skull is

A. Mandible

B. Maxilla

C. Vomer

D. Sphenoid



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**55.** Which of the following cranial bone is unpaired

- A. Frontal
- B. Occipital
- C. Sphenoid
- D. All of these



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## 56. Which of the following is short bone

A. Sternum

B. Tarsal

C. Patella

D. Humerus

#### **Answer:**

**57.** Bone formed by ossification of tendon is called.

A. Membrane bone

B. Cartilage bone

C. Sesmoid bone

D. Dermal bone

**Answer:** 



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58. Which of the following is sesmoid bone

- A. Patella
- B. Pisciform
- C. Fabella
- D. All of the above

#### **Answer:**



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<b>59.</b> 3	Smal	lest	bone	ın	man	IS

- A. Patella
- B. Stapes
- C. Carpal
- D. Tarsal



**60.** The number of bones in the vertebral column of man is

- A. 26
- B. 20
- C. 32
- D. 30

#### **Answer:**



61. Human vertebral formula is

A. 
$$C_7, T_{12}, L_5, S_4, CO_5$$

B. 
$$C_7, T_{12}, L_5, S_5, CO_4$$

C. 
$$C_8, T_{12}, L_5, S_5, CO_1$$

D. 
$$C_7, T_9, L_4, S_4, CO_5$$

## **Answer:**



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62. Characteristic of axis vertebra is

- A. Absence of centrum
- B. Presence of prezygapophysis
- C. Presence of odontoid process
- D. Bifid spine



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**63.** In human skeleton, a bone which not articulated with any other bone is

B. Incus				
C. Clavicle				
D. Mandible				
Answer:  Watch Video Solution				
<b>64.</b> In man, coccyx is formed by fusion of				
A. 5 sacral vertabrae				

A. Hyoid

- B. 4 coccygeal vertebae
- C. 5 coccygeal vertebrae
- D. 2 sacral and 3 coccygeal vertabrae



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**65.** Largest vertebra in human vertebral column is

A. Thoracic

- B. Lumbar
- C. Sacrum
- D. Cervical



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**66.** Presence of vertebral foramen of transverse process is the characteristic of which human vertebra

- A. Cervical
- B. Thoracic
- C. Lumber
- D. None of these



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**67.** Number of curves present in human vertebral column is

A.	One

B. Two

C. Three

D. Four

## **Answer:**



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**68.** The vertebrae whichbear whole weight of the skull is

B. Atlas C. Sacral D. Cervical **Answer: Watch Video Solution 69.** Which is correct about human body A. There are 5 vertebrae in the neck

A. Axis

- B. Brain box is made up of 4 bones
- C. There are 15 pairs of ribs
- D. There are 12 toracic vertabrae



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70. Number of bones in face is

A. 12

B. 14

**C.** 8

D. 22

## **Answer:**



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**71.** The opening of base of skull for the spinal cord is called

A. Foramen magnum

B. Foramen monaro

- C. Obturator foramen
- D. Foramen of magendie



- **72.** Scapula is an example of
  - A. Long bone
  - B. Short bone
  - C. Flat bone

D. Irregular bone

### **Answer:**



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# **73.** The number of ribs in human body is

A. 12

B. 24

C. 10

D. 36

#### **Answer:**



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74. In man, the ribs are articulated to

A. Caracoid

B. Scapula

C. Clavicle

D. Sternum

#### **Answer:**

## 75. The number of true ribs inman is

- A. 12 pairs
- B. 7 pairs
- C. 3 pairs
- D. 2 pairs

#### **Answer:**



## 76. Which one is called as breast/ chest bone

- A. Sternum
- B. Clavicle
- C. Innominate
- D. Scapula

#### **Answer:**



### 77. Collar bone is also known as

- A. Scapula
- B. Coracoid
- C. Clavicle
- D. Patella

#### **Answer:**



# 78. Which one is the part of pectoral girdle

- A. Illium
- B. Acetabulum
- C. Sternum
- D. Glenoid cavity

#### **Answer:**



## 79. 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:**



**80.** In children, the bones are more flexible and brittle because their bones have

A. Large quantity of salts and little organic substances

B. Well developed Haversian system

C. Large quantity or organic substances and little salts

D. Large number of osteoblasts

**Answer:** 

## 81. In man each half of pelvic girdle consists of

- A. Ilium
- B. Ischium
- C. Pubis
- D. All of the above

#### **Answer:**



**82.** Old people are more liable to fracture of their bones because

A. Bones become soft and elastic

B. Bones become hard and brittle

C. Bones contain large quantity of organic matter

D. None of the above

#### **Answer:**



## 83. Olecranon process is a kind of

- A. Investing bone
- B. membrane bone
- C. Cartilagenous bone
- D. Sesmoid bone

### **Answer:**



### **84.** Patella is associated with

- A. Elbow
- B. Knee
- C. Neck
- D. Wrist

#### **Answer:**

