

Locomotion and Movement

I. Select the correct answer from the following questions:

Question 1.

Human skull is

- (a) Tricondylic
- (b) Acondylic
- (c) Dicondylic
- (d) Monocondylic

▼ [Answer](#)

Answer: (c) Dicondylic.

Question 2.

Cranium of man is formed of bones

- (a) 8
- (b) 6
- (c) 2
- (d) 4

▼ [Answer](#)

Answer: (a) 8.

Question 3.

Face of skull is formed of bones

- (a) 28
- (b) 10
- (c) 8
- (d) 14

▼ [Answer](#)

Answer: (d) 14.

Question 4.

Curves in the vertebral column are

- (a) 8
- (b) 4
- (c) 2
- (d) 1

▼ [Answer](#)

Answer: (b) 4.

Question 5.

Which vertebra is commonly called yesbone?

- (a) Thoracic
- (b) Axis
- (c) Atlas
- (d) Typical cervical.

▼ [Answer](#)

Answer: (c) Atlas.

Question 6.

Axis vertebra is characterised by the presence of

- (a) Transverse
- (b) Odontoid process
- (c) Neural spine
- (d) Pre and post zygapophysis.

▼ [Answer](#)

Answer: (b) Odontoid process.

Question 7.

Total number of cervical vertebrae in human vertebral column are

- (a) 3
- (b) 12
- (c) 7
- (d) 5.

▼ [Answer](#)

Answer: (c) 7.

Question 8.

Total number of thoracic vertebrae in human vertebral column are

- (a) 3
- (b) 12
- (c) 5
- (d) 7

▼ [Answer](#)

Answer: (b) 12.

Question 9.

Total number of lumbar vertebrae in human vertebral column are

- (a) 3
- (b) 12
- (c) 5
- (d) 7

▼ [Answer](#)

Answer: (c) 5.

Question 10.

Xiphoid process is the lowest part of

- (a) Pectoral girdle
- (b) Pelvic girdle
- (c) Lumbar vertebrae
- (d) Sternum.

▼ [Answer](#)

Answer: (d) Sternum.

Question 11.

Trochlea is a part of

- (a) Pectoral girdle
- (b) Pelvic girdle
- (c) Femur
- (d) Humerus bone.

▼ [Answer](#)

Answer: (d) Humerus bone.

Question 12.

Sigmoid notch is a part of

- (a) Ulna bone
- (b) Humerus bone
- (c) Tibia bone
- (d) Radius bone.

▼ [Answer](#)

Answer: (d) Radius bone.

Question 13.

Innominate bone is also known as

- (a) Pelvic girdle
- (b) Pectoral girdle
- (c) Clavicle
- (d) Sternum

▼ [Answer](#)

Answer: (a) Pelvic girdle.

Question 14.

Acetabulum is a part of

- (a) Humerus bone
- (b) Pelvic girdle
- (c) Femur bone
- (d) Pectoral girdle

▼ [Answer](#)

Answer: (b) Pelvic girdle.

Question 15.

The obturator foramen is a part of

- (a) Skull
- (b) Spinal cord
- (c) Pelvic girdle
- (d) Vertebral column.

▼ [Answer](#)

Answer: (c) Pelvic girdle.

Question 16.

Articulation of femur with pelvic girdle is an example of

- (a) Pivot joint

- (b) Hinge joint
- (c) Gliding joint
- (d) Ball and socket joint.

▼ [Answer](#)

Answer: (d) Ball and socket joint.

Question 17.
Obturator foramen occurs in

- (a) Skull
- (b) Pelvic girdle
- (c) Vertebrae
- (d) Pectoral girdle

▼ [Answer](#)

Answer: (d) Pelvic girdle.

Question 18.
The total number of bones in human skeleton is

- (a) 305
- (b) 206
- (c) 205
- (d) 306

▼ [Answer](#)

Answer: (b) 206.

Question 19.
Cervical vertebrae occur in

- (a) Neck
- (b) Abdomen
- (c) Thorax
- (d) Tail.

▼ [Answer](#)

Answer: (a) Neck.

Question 20.
Knee joint is

- (a) Angular joint
- (b) Pivot joint
- (c) Hinge joint
- (d) Ball and socket joint.

▼ [Answer](#)

Answer: (c) Hinge joint.

Question 21.
The ions that play an important role in muscle contraction are

- (a) Ca^{++}
- (b) K^+

- (c) Na^{++}
- (d) Mg^{++}

▼ [Answer](#)

Answer: (a) Ca^{++}

Question 22.

Myoglobin is found in
(a) Slow muscle fibres
(b) Blood
(c) Lymph
(d) Fast muscle fibres.

▼ [Answer](#)

Answer: (a) Slow muscle fibres

Question 23.

Which of the following proteins is associated with the primary (thick) myofilaments:

- (a) Tropomyosin
- (b) Actin
- (c) Tropoin
- (d) Meromyosin.

▼ [Answer](#)

Answer: (d) Meromyosin.

Question 24.

The synovial fluid is found in
(a) Internal ear
(b) Freely movable joints
(c) Around the brain
(d) Intercellular spaces.

▼ [Answer](#)

Answer: (b) Freely movable joints.

Question 25.

Number of ribs in man is
(a) 16 pairs
(b) 10 pairs
(c) 14 pairs
(d) 12 pairs

▼ [Answer](#)

Answer: (d) 12 pairs.

II. Fill in the blanks:

Question 1.

Human beings can move,,, etc. Such voluntary movements are called locomotion.

▼ [Answer](#)

Answer: limbs, jaws, eyelids, tongue

Question 2.

Cells of the human body exhibit three main types of movements, namely,, and

▼ [Answer](#)

Answer: amoeboid, ciliary, muscular

Question 3.

Based on their location, three types of muscles are identified, (i) (ii) and (iii)

▼ [Answer](#)

Answer: Skeletal, Visceral, Cardiac

Question 4.

..... are the muscles of heart. Based on appearance, cardiac muscles are

▼ [Answer](#)

Answer: Cardiac muscles, striated

Question 5.

Muscle fibre is a as the sarcoplasm contains many nuclei.

▼ [Answer](#)

Answer: syncytium

Question 6.

Each myofibril has alternate and bands on it.

▼ [Answer](#)

Answer: dark, light

Question 7.

The thin filaments are firmly attached to the

▼ [Answer](#)

Answer: 'Z' line.

Question 8.

A complex protein is distributed at regular intervals on the

▼ [Answer](#)

Answer: Troponin, tropomyosin

Question 9.

Each meromyosin has two important parts, a with a short arm and a

▼ [Answer](#)

Answer: globular head, tail

Question 10.

Muscle contraction is initiated by a signal sent by the via a motor neuron.

▼ [Answer](#)

Answer: central nervous system (CNS)

Question 11.

Muscle contains a red coloured oxygen storing pigment called

▼ [Answer](#)

Answer: myoglobin

Question 12.

Skeletal system consists of a framework of bones and

▼ [Answer](#)

Answer: few cartilages

Question 13.

Axial skeleton comprises distributed along the main axis of the body.

▼ [Answer](#)

Answer: 80 bones

Question 14.

Each middle ear contains three tiny bones-, and stapes, collectively called

▼ [Answer](#)

Answer: Malleus, Incus, Ear Ossicles

Question 15.

Our vertebral column is formed by 26 serially arranged units called and is placed.

▼ [Answer](#)

Answer: vertebrae, dorsally

III. Mark the statements (T) True or (F) False

Question 1.

First seven pairs of ribs are called true ribs.

▼ [Answer](#)

Answer: True.

Question 2.

The 8th, 9th and 10th pairs of ribs do not articulate directly with the help of hyaline cartilage. These are called vertebrochondral ribs.

▼ [Answer](#)

Answer: True.

Question 3.

The bones of the limbs along with their girdles constitute the appendicular skeleton. Each limb is made of 30 bones.

▼ [Answer](#)

Answer: True.

Question 4.

The fore limb (hand) bones are humerus, radius and ulna, carpals (wrist bones-8 in number), meta carpals (palm bones – 5 in number) and phalanges (digits- 14 in number).

▼ [Answer](#)

Answer: True.

Question 5.

A cup shaped bone called patella cover the knee ventrally (knee cap).

▼ [Answer](#)

Answer: True.

Question 6.

Joints are essential for all types of movements involving the bony parts of the body.

▼ [Answer](#)

Answer: True.

Question 7.

Auto immune disorder affecting neuromuscular junction leading to fatigue, weakening and paralysis of skeletal muscle. (Myasthenia gravis).

▼ [Answer](#)

Answer: True.

Question 8.

Arthritis : Inflammation of joints due to accumulation of uric acid crystals.

▼ [Answer](#)

Answer: False.

Question 9.

Tetany : Rapid spasms (wild contractions) in muscle is due to lesser Ca^{++} in body fluid.

▼ [Answer](#)

Answer: True.

Question 10.

Human beings can move limbs, jaws, eyelids, tongue etc. Some of the movements result in a change of place or location. Such voluntary movements are called locomotion.

▼ [Answer](#)

Answer: True.

Question 11.

Walking, running, climbing, flying, swimming are all some forms of locomotory movements.

▼ [Answer](#)

Answer: True.

Question 12.

Only 10 percent of body weight of a human adult is contributed by muscles.

▼ [Answer](#)

Answer: False.

Question 13.

Each myosin (thick) filament is also a polymerised protein. Many monomeric proteins called meromyosins constitute one thick filament.

▼ [Answer](#)

Answer: True.

Question 14.

The junction between a motor neuron and the sarcolemma of the muscle fibre is called the neuromuscular junction or motor-end plate.

▼ [Answer](#)

Answer: True.

Question 15.

Red muscles also contain plenty of mitochondria which can utilise the large amount of oxygen stored in them for ATP production. These muscles, therefore, can also be called aerobic muscles.

▼ [Answer](#)

Answer: True.

IV. Match the items of column I with the items of column II

Column I	Column II
(a) Walking	1. muscles of heart
(b) Microfilaments	2. in the inner walls of hollow
(c) Passage of ova through the female reproductive tract.	3. Voluntary muscles.
(d) Striated muscles	4. fascia
(e) Cardiac muscles	5. locomotory movements.
(f) Visceral muscles	6. ciliary movement
(g) Muscle bundles or fascicles	7. a globular head with a short arm and a tail.
(h) Actin	8. amoeboid movement
(i) Myosin	9. Malleus, Incus and stapes
(j) Meromyosin	10. A or Anisotropic band

(k) Ear ossicles	11. appendicular skeleton
(l) Thoracic	12. I band or Isotropic band
(m) Bones of the limbs	13. is a large triangular flat bone
(n) Scapula	14. Decreased levels of estrogen is a common cause.
(o) Osteoporosis	15. 12.

▼ [Answer](#)

Answer:

Column I	Column II
(a) Walking	5. locomotory movements.
(b) Microfilaments	8. amoeboid movement
(c) Passage of ova through the female reproductive tract.	6. ciliary movement
(d) Striated muscles	3. Voluntary muscles.
(e) Cardiac muscles	1. muscles of heart
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(m) Bones of the limbs	11. appendicular skeleton
(n) Scapula	13. is a large triangular flat bone
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