

Locomotion and Movement — Assignment 1

Class 11 Biology · Topic-wise question bank covering every concept of the chapter · Narayan Gurukul Academy

Instructions: (1) Attempt all questions. This worksheet walks through every concept of the chapter, topic by topic.
(2) The interactive MCQ version of these questions (with instant answer reveal) is available on the notes page.
(3) Universal values: $g = 10 \text{ m/s}^2$ unless stated. Give answers with correct SI units.

Types of Movement

MCQ Questions (choose the correct option)

1. A movement that results in change of place is called
 - (A) locomotion
 - (B) movement
 - (C) contraction
 - (D) relaxation
2. Amoeboid movement is seen in
 - (A) macrophages
 - (B) neurons
 - (C) cardiac muscle
 - (D) bone cells
3. Ciliary movement helps in the movement of
 - (A) gametes
 - (B) bones
 - (C) joints
 - (D) muscles only
4. Movement of the limbs is an example of
 - (A) locomotion
 - (B) amoeboid movement
 - (C) ciliary movement
 - (D) cytoplasmic streaming

1 Mark Questions

1. Define locomotion.
2. Name one cell that shows amoeboid movement.
3. Give one example of ciliary movement.

2 Mark Questions

1. Distinguish between movement and locomotion.
2. Name the three types of movement in the human body.

3 Mark Questions

1. Describe the types of movement.
2. Explain how locomotion differs from other movements with examples.

The Human Skeletal System

MCQ Questions (choose the correct option)

1. The human skeleton consists of
 - (A) 206 bones
 - (B) 306 bones
 - (C) 180 bones
 - (D) 150 bones
2. Bone is a type of
 - (A) connective tissue
 - (B) epithelial tissue
 - (C) muscular tissue
 - (D) nervous tissue
3. The framework of the body is provided by the
 - (A) skeletal system
 - (B) muscular system
 - (C) nervous system
 - (D) digestive system
4. The number of bones in the adult human vertebral column is
 - (A) 26
 - (B) 33
 - (C) 12
 - (D) 24

1 Mark Questions

1. How many bones are in the human skeleton?
2. What type of tissue is bone?
3. What is the function of the skeletal system?

2 Mark Questions

1. State two functions of the skeletal system.
2. Name the two main divisions of the human skeleton.

3 Mark Questions

1. Describe the human skeletal system and its functions.
2. Explain the role of the skeleton in movement and protection.

Axial and Appendicular Skeleton

MCQ Questions (choose the correct option)

1. The axial skeleton consists of
 - (A) 80 bones
 - (B) 126 bones
 - (C) 206 bones
 - (D) 60 bones
2. The appendicular skeleton consists of

- (A) 126 bones
 - (B) 80 bones
 - (C) 206 bones
 - (D) 33 bones
3. The skull is part of the
- (A) axial skeleton
 - (B) appendicular skeleton
 - (C) limbs
 - (D) girdles
4. The pectoral girdle is part of the
- (A) appendicular skeleton
 - (B) axial skeleton
 - (C) skull
 - (D) ribs

1 Mark Questions

1. How many bones are in the axial skeleton?
2. How many bones are in the appendicular skeleton?
3. Is the skull axial or appendicular?

2 Mark Questions

1. Distinguish between axial and appendicular skeleton.
2. Name the components of the appendicular skeleton.

3 Mark Questions

1. Describe the axial and appendicular skeleton.
2. List the bones of the appendicular skeleton.

The Vertebral Column, Ribs and Sternum

MCQ Questions (choose the correct option)

1. The number of vertebrae in the adult human vertebral column is
 - (A) 26
 - (B) 33
 - (C) 12
 - (D) 24
2. The number of pairs of ribs in humans is
 - (A) 12
 - (B) 11
 - (C) 10
 - (D) 14
3. The ribs that are not attached to the sternum are called
 - (A) floating ribs
 - (B) true ribs
 - (C) false ribs

- (D) vertebral ribs
4. The sternum is located in the
- (A) thorax
 - (B) pelvis
 - (C) skull
 - (D) limb

1 Mark Questions

1. How many vertebrae are in the adult vertebral column?
2. How many pairs of ribs are there?
3. What are floating ribs?

2 Mark Questions

1. Distinguish between true ribs and false ribs.
2. Name the regions of the vertebral column.

3 Mark Questions

1. Describe the vertebral column and its regions.
2. Describe the ribs and the sternum.

Joints

MCQ Questions (choose the correct option)

1. Joints are classified into
 - (A) fibrous, cartilaginous and synovial
 - (B) only fibrous
 - (C) only synovial
 - (D) only cartilaginous
2. A freely movable joint is a
 - (A) synovial joint
 - (B) fibrous joint
 - (C) cartilaginous joint
 - (D) suture
3. The joint at the shoulder is an example of a
 - (A) ball-and-socket joint
 - (B) hinge joint
 - (C) pivot joint
 - (D) gliding joint
4. The joint between the skull bones is a
 - (A) fibrous joint
 - (B) synovial joint
 - (C) cartilaginous joint
 - (D) ball-and-socket joint

1 Mark Questions

1. Name the three types of joints.
2. Give an example of a ball-and-socket joint.
3. Which type of joint is freely movable?

2 Mark Questions

1. Distinguish between fibrous and synovial joints.
2. Give one example each of a hinge and a pivot joint.

3 Mark Questions

1. Describe the classification of joints with examples.
2. Explain the types of synovial joints.

Muscle Tissue and Its Organisation

MCQ Questions (choose the correct option)

1. The three types of muscle are
 - (A) skeletal, smooth and cardiac
 - (B) only skeletal
 - (C) only smooth
 - (D) only cardiac
2. Skeletal muscle is
 - (A) striated and voluntary
 - (B) smooth and involuntary
 - (C) unstriated
 - (D) cardiac
3. The functional unit of a muscle fibre is the
 - (A) sarcomere
 - (B) myofibril
 - (C) neuron
 - (D) tendon
4. Skeletal muscle is attached to bone by
 - (A) tendons
 - (B) ligaments
 - (C) cartilage
 - (D) skin

1 Mark Questions

1. Name the three types of muscle.
2. What is a sarcomere?
3. How is muscle attached to bone?

2 Mark Questions

1. Distinguish between skeletal and smooth muscle.
2. Describe the structure of a muscle fibre.

3 Mark Questions

1. Describe the three types of muscle tissue.
2. Explain the organisation of skeletal muscle from fibre to sarcomere.

Sliding Filament Mechanism and Energy

MCQ Questions (choose the correct option)

1. Muscle contraction occurs by the
 - (A) sliding filament mechanism
 - (B) photolysis
 - (C) osmosis
 - (D) diffusion
2. During contraction, the A band
 - (A) remains constant
 - (B) shortens
 - (C) disappears
 - (D) lengthens
3. The contraction of muscle is triggered by the release of
 - (A) calcium ions
 - (B) sodium ions
 - (C) potassium ions
 - (D) chloride ions
4. The energy for muscle contraction is provided by
 - (A) ATP
 - (B) glucose only
 - (C) water
 - (D) oxygen only

1 Mark Questions

1. What is the sliding filament theory?
2. Which ion triggers muscle contraction?
3. Which molecule provides energy for contraction?

2 Mark Questions

1. State the sliding filament mechanism.
2. What is the role of ATP in muscle contraction?

3 Mark Questions

1. Explain the sliding filament mechanism of muscle contraction.
2. Describe the role of actin, myosin, calcium and ATP in contraction.

Locomotion and Movement Disorders

MCQ Questions (choose the correct option)

1. Myasthenia gravis affects the
 - (A) neuromuscular junction

- (B) bones
 - (C) joints only
 - (D) skin
2. Gout is caused by the accumulation of
- (A) uric acid crystals in joints
 - (B) calcium in bones
 - (C) protein in muscles
 - (D) water in joints
3. Osteoporosis is characterised by
- (A) decreased bone mass
 - (B) increased bone mass
 - (C) joint inflammation
 - (D) muscle weakness only
4. Muscular dystrophy is a
- (A) progressive degeneration of skeletal muscle
 - (B) bone disorder
 - (C) joint disorder
 - (D) nerve disorder only

1 Mark Questions

1. What is myasthenia gravis?
2. What causes gout?
3. What is osteoporosis?

2 Mark Questions

1. State two disorders of the muscular system.
2. Distinguish between gout and osteoporosis.

3 Mark Questions

1. Describe the disorders of locomotion and movement.
2. Explain the causes of myasthenia gravis, gout and muscular dystrophy.