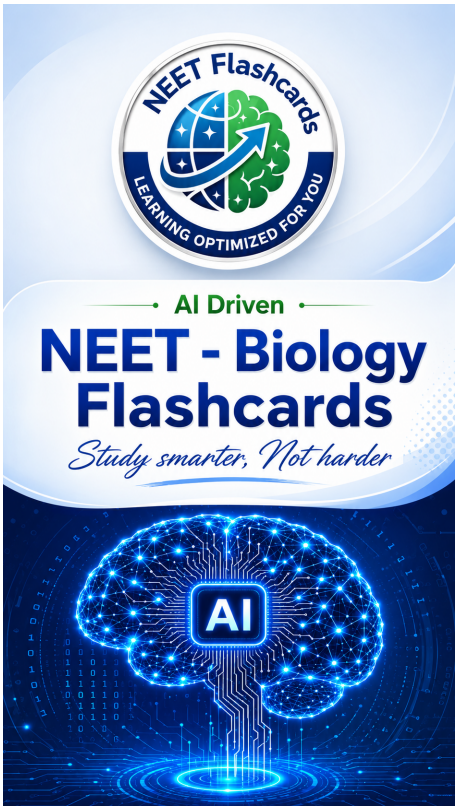

Question	Answer
Give examples of locomotory movements.	Walking, running, climbing, flying, and swimming.
How many bones are present in each limb?	30 bones.
How many bones are present in the human skull?	22 bones.
How many lumbar vertebrae are present in humans?	5.
How many pairs of ribs are present in humans?	12 pairs.
How many vertebrae form the vertebral column in humans?	26 vertebrae.
Name the bones of the hind limb.	Femur, tibia, fibula, tarsals, metatarsals, and phalanges.
Name the three main types of movements in human body cells.	Amoeboid, ciliary, and muscular movements.
Name the two important parts of meromyosin.	Head with short arm and tail.
Name the two proteins present along with F-actin in thin filament.	F-actin, Tropomyosin, and Troponin.
On what criteria are muscles classified?	Location, appearance, and nature of regulation.
On which side of the body is the sternum present?	Ventral side.
What are joints?	Points of contact between bones or between bones and cartilages.
What are muscle bundles also called?	Fascicles.
What are sutures?	Dense fibrous connective tissues joining skull bones.
What binding sites are present on the globular head of myosin?	ATP binding sites and actin binding sites.
What causes actin filaments to slide over myosin filaments?	Formation of cross bridges by myosin heads.
What happens between thin and thick filaments in resting state?	Thin filaments partially overlap the free ends of thick filaments.
What happens when Ca++ ions are pumped back into sarcoplasmic cisternae?	Actin filaments become masked, leading to muscle relaxation.
What happens when calcium binds to troponin?	Active sites for myosin on actin become exposed.
What is another name for clavicle?	Collar bone.
What is another name for the I-band?	Isotropic band.
What is osteoporosis?	Age-related disorder with decreased bone mass and increased fracture chances.

Question	Answer
What is the first vertebra called?	Atlas.
What is the function of cilia in the trachea?	Removal of dust particles and foreign substances.
What is the function of girdles in the body?	They help articulate limbs with the axial skeleton.
What is the function of sarcoplasmic reticulum in muscle fibres?	Storage of calcium ions.
What is the functional unit of muscle contraction?	Sarcomere.
What is the junction between motor neuron and sarcolemma called?	Neuromuscular junction or motor-end plate.
What is the role of flagellar movement in spermatozoa?	Helps in swimming.
What is the Z-line?	An elastic fibre present in the centre of each I-band.
Where are visceral muscles located?	In the inner walls of hollow visceral organs.
Where is the scapula located?	Dorsal part of thorax between second and seventh ribs.
Which band decreases in length during muscle contraction?	I-band.
Which bone is present at the base of the buccal cavity?	Hyoid bone.
Which component is highly developed in white muscle fibres?	Sarcoplasmic reticulum.
Which girdle articulates the upper limb with the axial skeleton?	Pectoral girdle.
Which joints allow considerable movement?	Synovial joints.
Which muscles are attached to skeletal elements?	Skeletal muscles.
Which muscles are present in the heart?	Cardiac muscles.
Which protein runs close to F-actin throughout its length?	Tropomyosin.
Which structure in muscle fibre stores calcium ions essential for contraction?	Sarcoplasmic reticulum.
Which type of joint is present between carpal and metacarpal of thumb?	Saddle joint.
Which type of joint is present between femur and acetabulum?	Ball and socket joint.

Question	Answer
Which type of joints play a significant role in locomotion?	Synovial joints.
Which type of muscle is skeletal muscle?	Striated and voluntary muscle.
Why are the 8th, 9th, and 10th ribs called false ribs?	They do not directly articulate with the sternum.
Why do red muscle fibres appear reddish?	Due to high myoglobin content.
Why is cartilage slightly pliable?	Due to chondroitin salts.