

## Biology - 12th Class Biology Chapter 16 Short Questions Preparation

Q1. Give the name of hormones which are involved in epinasty and hyponasty.

**Ans 1:** Epinasty is due to auxins and hyponasty is due to gibberellins.

Q2. What is foramen triosseum? How is it formed?

**Ans 1:** In birds the lifting action is possible because the tendon of the supra coracoid muscles pass through an opening called foramen triosseum formed between the scapula coracoid and clavicle bones is attached to the upper surface of the humerus.

Q3. Explain the term epinasty and hyponasty.

**Ans 1:** Epinasty: is shown by leaves, petals etc. the upper surface of leaf in bud condition shows more growth as compared with lower surface. This leads to opening of buds.  
Hyponasty: If growth in the lower surface of the leaf in bud condition is more than that of upper surface then buds remain close and it is called hyponasty.

Q4. Describe pelvic and pectoral girdle in human skeleton.

**Ans 1:** Pelvic girdle attaches the hind limbs to the vertebral column. It consists of two coxal bones. Each of which is formed by the fusion of three bones: ilium, ischium and pubis. Pectoral girdle comprises scapula, supra scapula and clavicle. Clavicle connects scapula with sternum.

Q5. Define Plantigrades with example.

**Ans 1:** Animals which walk on the sole. When they walk their sole and toes touch the ground are called plantigrades. E.g., human, bear and monkey.

Q6. What is callus and its role?

**Ans 1:** Callus is a mass of undifferentiated cells. It heals the wound of plant.

Q7. Give two modifications in the exoskeleton of arthropods.

**Ans 1:** Modification of exoskeleton in arthropods is as follows:  
Formation of sensilla (bristle), lenses and modification for gaseous exchange.

Q8. Explain the ball and socket joints and give an example.

**Ans 1:** Joints which can move or rotate in more than one plane are called ball and socket joints like shoulder and hip joint.

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Q9. Name the unpaired cranial bones.

**Ans 1:** Ethmoid, frontal, occipital and sphenoid are unpaired cranial bones.

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Q10. Define tonoplast, give its function as well.

**Ans 1:** The wall of vacuole is called tonoplast, it is single membrane. It maintains the turgor pressure and solute concentration.

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