Brain International School
Vikas Puri, New Delhi

ASSIGNMENT NO. 1

SUBJECT: BIOLOGY CLASS-XI APRIL/MAY '2026

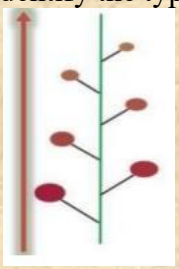
Chapter 5 Morphology of flowering plants

Q1. CASE STUDY QUESTION

Read the passage carefully and answer the Questions that follows

A flower is a modified shoot wherein the shoot apical meristem changes to floral meristem. The apex produces different kinds of floral appendages laterally at successive nodes instead of leaves. When a shoot tip transforms into a flower, it is always solitary. The arrangement of flowers on the floral axis is termed as inflorescence. Depending on whether the apex gets developed into a flower or continues to grow, two major types of inflorescences are defined – racemose and cymose. In racemose type of inflorescences, the main axis continues to grow, the flowers are borne laterally in an acropetal succession. In cymose type of inflorescence the main axis terminates in a flower, hence is limited in growth. The flowers are borne in a basipetal order. The flower is the reproductive unit in the angiosperms. It is meant for sexual reproduction. A typical flower has four different kinds of whorls arranged successively on the swollen end of the stalk or pedicel, called thalamus or receptacle.

1. Identify the type of inflorescence in the figure given below.



a) Racemose

b) Cymose

c) Basipetal

d) Solitary

2. The main function of the flower is

a) To produce nectar

b) Vegetative growth

c) Sexual reproduction

d) Aesthetic beauty.

3. The stage on which the flower is placed is called the

a) Pedicel

b) Receptacle

c) Calyx

d) Stigma

4. The accessory whorls that are indirectly helping in the function of reproduction are

a) Corolla and Calyx

b) Androecium-filament and anther

c) Gynoecium-ovary, style and sigma

d) Anther and Ovary

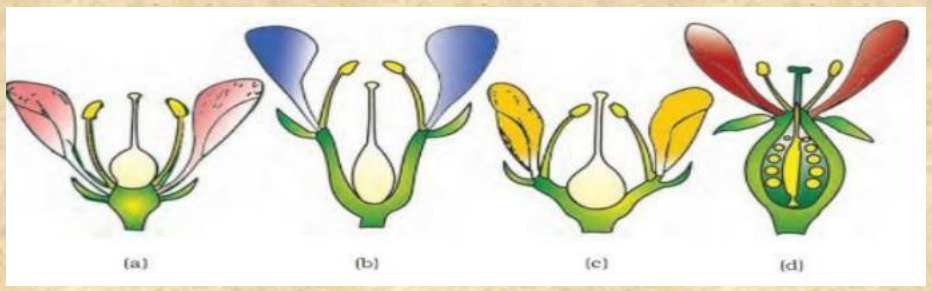
5. All incomplete flowers are unisexual

a) True

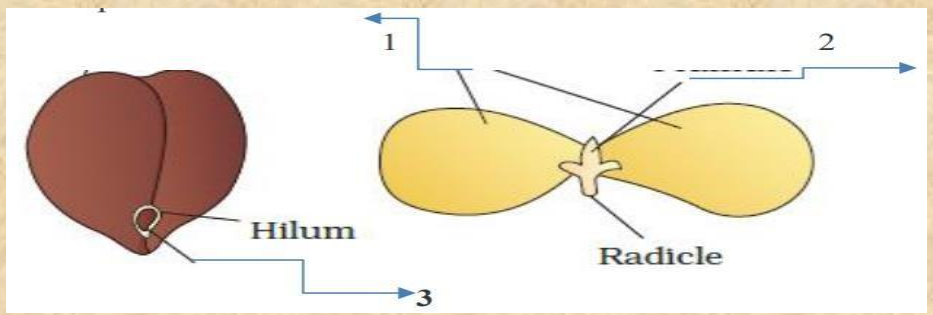
b) False

Q2. Answer the following questions:

1. Identify the position of the floral parts on the thalamus as shown in the diagram below.



2. What isaestivation, Explain the types with diagrammatic representation and any one example.



3. a) The diagrams given above represent the structure of dicotyledonous seed, Identify the parts labelled 1,2,3 and state their functions.

b) How is an endosperm formed, State its significance.

Chapter 6: Anatomy of flowering plants

Q1. CASE STUDY QUESTION

Read the passage carefully and answer the Questions that follows

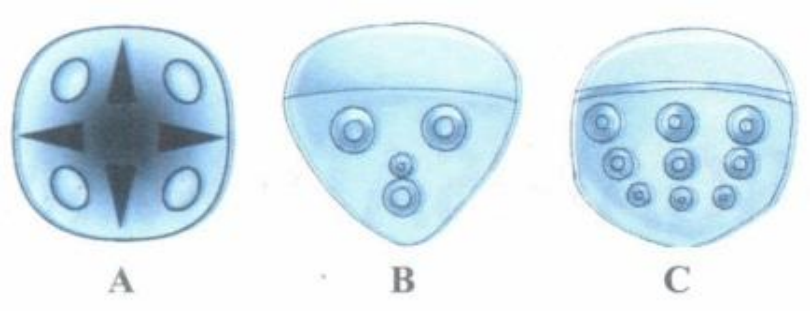
The growth of roots and stems of plants in length accomplished by the apical meristems, is called primary growth. The dicotyledonous plants show secondary growth, i.e. an increase in the girth of stem and root with the help of lateral meristems

(a) Name the lateral meristems involved in secondary growth of dicot stems.

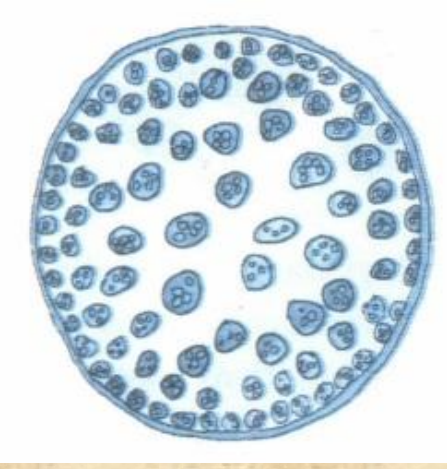
(b) Why is more secondary xylem than secondary phloem formed during secondary growth?

(c) What are secondary medullary rays?

Q2. Answer the following questions



i. Identify the three types of vascular bundles, A, B and C shown above. Give one example for each type.



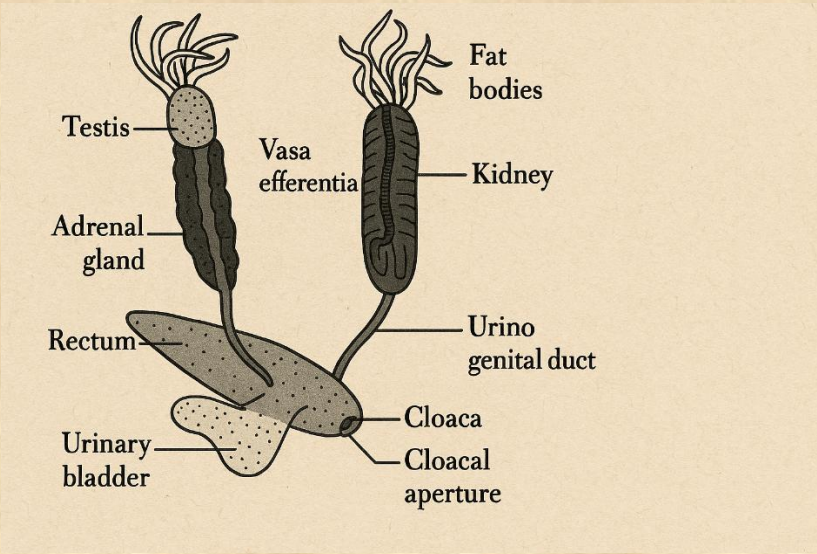
ii. The ground plan of a transverse section of a monocot stem is shown above.

(a) Name the cell type, the hypodermis of monocot stem is made of.

(b) Write any four characteristics of the vascular bundles in a monocot stem.

Chapter 7: Structural organisation in animals

Q1. The diagram of the reproductive system of a male frog is shown below Observe the diagram and answer the questions that follow:



a) How are the testis adhered to the upper part of kidney?
b) Why are the ureters in a male frog called urinogenital ducts?
c) Where do the vasa efferentia arise from? How many of them are there? Where do they enter further and open into?
d) Where do the urinogenital ducts open into?

Q2.Answer the following questions :

i) a) Frogs are diocious and sexually dimorphic.

b) Write two features in which the male frogs can be distinguished from the female frogs, externally?

ii) What is cutaneaous respiration? When does a frog carry out cutaneous respiration?

iii) How is digestion aided in the stomach and intestine in frogs?