

xii) Anaerobic respiration normally occurs in

- a) Cactus
- b) Grass
- c) Yeast
- d) Papaya

xiii) A colouring pigment that remains dissolved in the cell sap.

- a) Chlorophyll
- b) Xanthophyll
- c) Carotene
- d) Anthocyanin

xiv) The supporting tissue found in leaf stalk.

- a) Parenchyma
- b) Collenchyma
- c) Sclerenchyma
- d) Vascular

xv) The tissue that attaches the ovule to the wall of the ovary.

- a) Placenta
- b) Perianth
- c) Bract
- d) Receptacle

Q2 (i) Name the following:

[5]

- a) The mode of arrangement of flowers on the axis of a plant.
- b) The flowers that do not open at all even at maturity.
- c) The opening found in older stems.
- d) A cell organelle having its own DNA.
- e) The fluid surrounding the body cells.

(ii) Arrange and rewrite the terms in each group in the correct order so as to be in a logical sequence beginning with the term that is underlined:

[5]

- a) Zygote, fusion of gametes, embryo, pollination
- b) Cell membrane, cytoplasm, cell wall, nucleolus
- c) Ovule, Ovary, embryo sac, nucellus
- d) Plumule, coleorhiza, radicle, coleoptile
- e) Dendrites, nucleus, perikaryon, Nissl granules

(iii) Fill in the blanks with suitable words:

[5]

- a) Vacuole is covered by _____.
- b) The sepals and petals look similar and cannot be differentiated is called _____.
- c) The outermost layer of endosperm is rich in protein and is called _____.
- d) United petals are called _____.
- e) A seed contains a _____ embryo.

(iv) Choose the odd one out from the following terms and name the category to which the others belong:

[5]

- a) Tegmen, micropyle, receptacle, cotyledons
- b) Hibiscus, lily, palm, rose.
- c) Tracheid, tracheae, sieve plate, xylem parenchyma.
- d) Nucleolus, vacuole, Chromatin network, gene.
- e) Granules, dictyosomes, lysosomes, Plastid.

(v) Match the items given in column A with the most appropriate ones in column B and rewrite the correct matching pairs:

[5]

Column A

- a) Bean seed
- b) Maize seed
- c) Bone
- d) Muscle
- e) Nerve

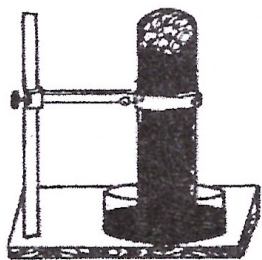
column B

- node of Ranvier
- sarcolemma
- rolled plumule leaves
- folded plumule leaves
- cambium
- ribosome
- harversian canal
- lymph

Section B (40 marks)

- Q3. a) Define Dichogamy. [1]
b) Why self-pollination is of great economy on part of a plant? [2]
c) Differentiate between polyadelphous and polyandrous. [2]
d) Mention two functions of a micropyle in a seed. [2]
e) Draw a diagram of a cut open bean seed and label the given parts: epicotyl, hypocotyl, plumule and radicle. Also mention the functions of cotyledon. [3]

- Q4 a) What is geitonogamy? [1]
b) Give difference between Glycolysis and Krebs's cycle. [2]
c) Give the exact location of Apical meristem and cambium meristem. [2]
d) Mention characteristic features of a wind pollinated flower on the basis of
i) type of pollen grains ii) kind of stigma [2]
e) In the given diagram we can observe germinating seeds completely surrounded by mercury. Answer the questions that follow: [3]

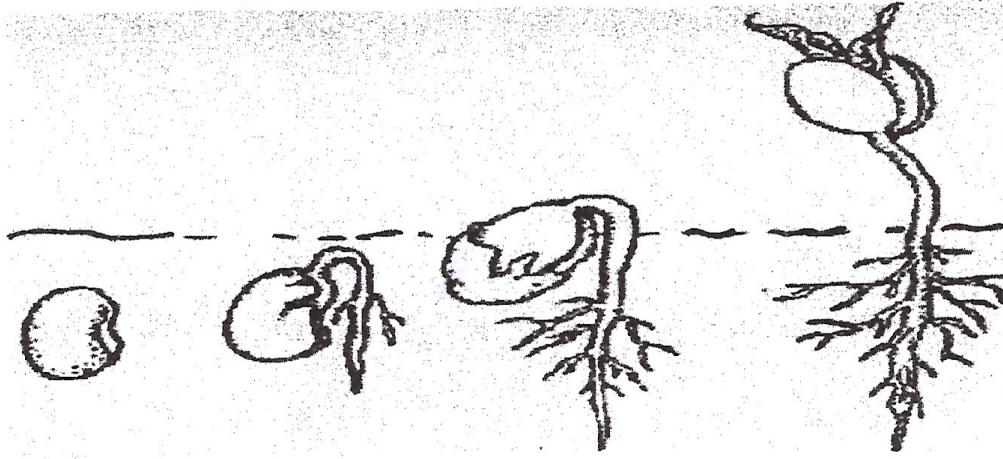


- i) What is the aim of given experiment?
- ii) Why are the seeds peeled off before introducing them into the test tube?
- iii) What will be the observation after 2-3 days?

- Q5 a) Write the full form of DNA. [1]
b) Give difference between Herkogamy and Heterostyly. [2]
c) What do you understand by the term 'double fertilization' in plants. [2]
d) Give characteristic features of a prokaryotic cell. [2]

e) Observe the given diagram and answer the questions:

[3]



- Identify the kind of germination shown in the given seed. In which type of seed is it usually found?
- Give two features of the given seed germination.

Q6. a) What is emasculation?

[1]

b) Give the exact location of (i) cuboidal epithelium

(ii) Ciliated columnar epithelium

[2]

c) An embryo contains seven cells. Explain.

[2]

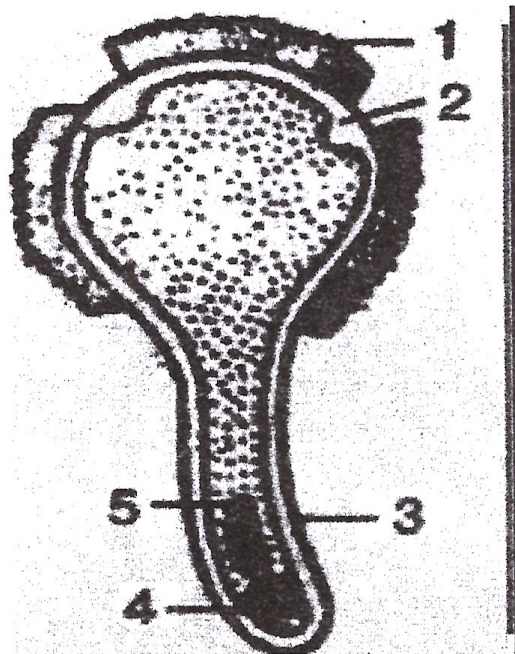
d) Differentiate between i) Tendon and Ligament

ii) Bone and cartilage

[2]

e) Observe the diagram and answer the questions:

[3]



i) Label the parts 1, 2, 3, 4 and 5.

ii) What is the role of labelled part 4.

*****ALL THE BEST*****