

ASSIGNMENT - 1

Q1) - a) Define followings:-

Systematics, Taxonomy.

(2x1=2)

b) How is Key helpful in the identification and classification of organisms?

(2)

Q2) - a) What are Taxonomical aids? Write about Herbarium and Botanical Gardens. Give atleast two examples of each. (5)

Q3) - a) Differentiate between Monocotyledones and dicotyledones. (2)

b) Explain Double fertilization in flowering plants. (2)

c) Discuss briefly the life cycle of an angiosperm. (1)

Q4) a) What is meant by modification of root? What type of modification of root found in the followings:- (3)

i) Banyan tree, ii) Turnip iii) Mangroove trees.

b) Justify the statement, "Underground parts of a plant are not always roots." (2)

Q5) a) How is pinnately compound leaf different from Palmately compound leaf. (3)

b) Explain with suitable example of different types of phyllotaxy. (2)

- Que 1 a) Differentiate between Endospermic and non endospermic seed.
- b) With the help of diagram explain the structure of Mono-cotyledonous seed.
- c) Give floral formula and floral diagram of Family Fabaceae.

- Que 2 a) Explain the process of Secondary growth in the stems of woody angiosperms with the help of schematic diagrams. What is its significance.

b) Why are xylem and phloem called complex tissues? 1

- Que 3 a) What is stomatal apparatus? Explain the structure of stomata with labelled diagram. What is the difference in structure of stomata found in dicots and monocots. 5

- Que 4 a) Differentiate between Monocot stem and Dicot stem. 2
- b) With the help of diagram explain the structure of Isobilateral leaf. 2
- c) What is the difference between open and closed vascular bundles. 1

Que 5 Describe the Morphology, Anatomy and functions of different system of an insect (cockroach)

ASSIGNMENT - 3.

- Q1) Define - Diffusion, Facilitated diffusion, Osmosis, Plasmolysis
(any five) Imbibition, development, differentiation, redifferentiation. (5)
- Q2) Define Ascent of sap. Explain transpiration pull theory in brief. (3)
- Q3) Differentiate between - (3)
- a) Transpiration and Guttation.
 - b) Micronutrients and macronutrients. $3 \times 2 = 6$
 - c) J-shaped growth curve and S-shaped growth curve.
- Q4) Name at least five different deficiency symptoms in plants. Describe them and correlate them with concerned mineral deficiency. (4)
- Q5) Why is Abscisic acid also known as stress hormone? (3)
- Q6) Describe briefly Photoperiodism and Vernalisation. (4)

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ASSIGNMENT - 4.

- Q1) With the help of diagram explain the digestive system of man. (3)
- Q2) How are polysaccharides and oligosaccharides digested? (2)
- Q3) Answer in brief:- (2)
- Why are villi present in the intestine and not in stomach?
 - How does pepsinogen change into its active form. $2 \times 1\frac{1}{2} = (3)$
- Q4) Explain the mechanism of muscle contraction in brief. (4)
- Q5) What are the different types of movements exhibited by the cells of human body? (3)
- Q6) In old age, people often suffer from stiff and inflamed joints. What is this condition called? What are possible reasons for these symptoms. (3)
- Q7) With the help of diagram explain the structure of human eye. (4)
- Q8) Explain the mechanism of hearing in humans. (3)
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