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Jars Education

Shop no. 2,3,4 hendre pada Badlapur west thane

Time : 1 hour 15 Minute

STD 11 Science Biology
Chapter Based Test

Total Marks : 40

SECTION A

* **Choose The Right Answer From The Given Options.[1 Marks Each]** **[5]**

1. Plants die from prolonged water-logging because.
   (A) Cell sap in the plants becomes too dilute.
   (B) Root respiration stops.
   (C) Nutrients leach down due to excess water.
   (D) Soil nutrients become very dilute.
2. Mineral and vitamins are called_____?
   (A) Macronutrients (B) Micronutrients
   (C) Carbohydrates (D) Both A and B
3. Which of the following is not absorbed through soil?
   (A) Carbon (B) Nitrogen
   (C) Potassium (D) All of the above
4. Which of the following is not performed by root hairs?
   (A) Oxygen uptake. (B) CO_2 uptake.
   (C) Water uptake. (D) Mineral uptake.
5. The element needed for synthesis of chlorophyll, is:
   (A) Manganese. (B) Iron. (C) Cobalt. (D) Zinc.

* **Answer The Following Questions In One Sentence.[1 Marks Each]** **[6]**

6. Who proved that the mineral passes through xylem and not phloem?
7. Glutamic acid plays an essential role in synthesis of amino acid.
8. Name the most crucial enzyme found in root nodules for N_2 fixation. Does it require a special pink coloured pigment for its functioning? Elaborate.
9. Name the amino acid in which sulphur is present.
10. Which component of electron transport contains both iron and sulphur?
11. Mark the odd one in the following group.
    Iron, Boron, Manganese, Magnesium.

SECTION B

* **Given Section consists of questions of 2 marks each.** **[10]**

1. Name two organic forms of nitrogen that are transported through xylem.

2. The technique of solution culture has been developed to avoid contamination. Justify. How?
3. Name the four elements needed by only some higher plants, as mineral nutrients.
4. Mineral elements play a paramount role in the performance and maintenance of life activities of a plant. If agree, Justify giving any four important reasons.
5. What are two macronutrients which are not obtained through soil as mineral nutrition? What is their importance?

SECTION C

*** Given Section consists of questions of 3 marks each.** **[9]**

1. On a trip of North-East region, Kirti saw some plants which have big leaves in order to trap organisms. Kirti was amazed and asked her teacher about the reason for absence of such plants in other areas. Teacher replied that such plants grow on soil that is deficient in nitrogen and therefore, catch insects to fulfil their nitrogen requirements.
   i. What is the role of nitrogen in plants?
   ii. Name any two insectivorous plants?
   iii. What is the nature of such plants? What is the strange thing about them?
   iv. Which values of Kirti one should imbibe?
2. Give the information about the following mineral nutrients in plants as asked against each:
   a. Sulphur: Any one amino acid in which it is present, effect of deficiency on flowering.
   b. Manganese: Chemical form in which absorbed from the soil, the best defined function in photosynthesis.
   c. Calcium: Two Roles during cell division.
3. Carnivorous plants exhibit nutritional adaptation. Citing an example explain this fact.

SECTION E

*** Given Section consists of questions of 5 marks each.** **[10]**

1. Mention any five functions performed by essential elements in plants.
2. Complete the following table by filling the blanks marked (A-F) below.

Essential element	Macro or Micro/ Region of requirement	Function	Dificiency
Boron	Micro/ apical leaves and seeds	Elongation of pollen tube	____ (A) ____
____ (B) ____	Micro/ whole plant	Involved in OXi-red reactions	Development of necrotic spots
Phosphorus	____ (C) ____	____ (D) ____	Structed plants
Magnesium	Macro/ growing areas of root and stems	____ (E) ____	____ (F) ____

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