

EXERCISES

1. 'All elements that are present in a plant need not be essential to its survival'. Comment.
2. Why is purification of water and nutrient salts so important in studies involving mineral nutrition using hydroponics.
- * 3. Explain with examples: macronutrients, micronutrients, beneficial nutrients, toxic elements and essential elements.
- * 4. Name at least five different deficiency symptoms in plants. Describe them and correlate them with the concerned mineral deficiency.
5. If a plant shows a symptom which could develop due to deficiency of more than one nutrient, how would you find out experimentally, the real deficient mineral element?
6. Why is that in certain plants deficiency symptoms appear first in younger parts of the plant while in others they do so in mature organs?
7. How are the minerals absorbed by the plants?
- * 8. What are the conditions necessary for fixation of atmospheric nitrogen by *Rhizobium*. What is their role in N_2 -fixation?
- * 9. What are the steps involved in formation of a root nodule?
- * 10. Which of the following statements are true? If false, correct them:
 - (a) Boron deficiency leads to stout axis.
 - (b) Every mineral element that is present in a cell is needed by the cell.
 - (c) Nitrogen as a nutrient element, is highly immobile in the plants.
 - (d) It is very easy to establish the essentiality of micronutrients because they are required only in trace quantities.