



INDIAN SCHOOL DARSAIT

DEPARTMENT OF BIOLOGY



Subject : Biology

Topic : Mineral Nutrition

Date of worksheet : 1 -6 -2017

Resource Person: Zehra Fatima

Date of Submission : _____

Name of the Student : _____

Class & Division : XI B

Roll Number : ____

S.No.	Questions	Marks
1 .	What is the term given to growing of plants in a defined nutrient solution, in absence of soil? State its two uses.	1
2.	Name two symbiotic nitrogen-fixing bacteria.	1
3.	What do you mean by Ammonification and Denitrification?	1
4.	Differentiate between micronutrient and macronutrient.	1
5.	Mention any two organisms which fix nitrogen asymbiotically.	1
6.	Which pigment present in the root nodule of leguminous plants? Mention its role.	1
7.	Define Chlorosis.	1
8.	Name the following i)Bacteria which converts ammonia into nitrite. ii)Bacteria which oxidises nitrite into nitrate.	1
9.	Which amino acids contains sulphur present in them?	2
10.	Differentiate between two types of absorption of minerals in plants from soil.	2
11.	Write any four functions of each i)Potassium ii)Phosphorous iii)Magnesium	2
12.	Write any two criteria for an element to be considered as essential for plant life?	2
13.	Why is that in certain plants deficiency symptoms appear first in younger parts of the plant while in others they appear in mature organs?	3
14.	Write a short note on reductive amination and transamination	3
15.	How does leg-haemoglobin protect the enzyme nitrogenase?	3

16. Name the element which is involved in 3
i)Synthesis of auxins ii)Fixation of nitrogen
iii)Formation of chlorophyll iv)Photolysis of water
v)Formation of middle lamella of plant cells vi)Opening and closing of stomata.
17. Describe the following three deficiency symptoms and co-relate them with concerned mineral deficiency: 3
a)Chlorosis b)Necrosis c)Stunted plant growth
18. Describe with the help of diagrams root nodules formation in leguminous plants. 5