



PARISHRAMA NEET ACADEMY

TARGET NEET - 2022

BIOLOGY

TOPIC: MINERAL NUTRITION

51. (1)
Inulin and raphides crystals are reserve materials in plants. Inulin is a polysaccharide (a polymer of fructose) and is present in compositae. Raphides are bunches of needle like crystal of calcium oxalate found in certain plant cells.
52. (2)
In 1860, Julius von Sachs, a prominent German botanist demonstrated for the first time that plants could be grown to maturity in a defined nutrient solution in complete absence of soil. This technique of growing plants in a nutrient solution is known as hydroponics.
53. (4)
The soilless production of plants is called hydroponics. Plants are raised in small tanks of concrete or metal. The tanks are covered over by wire netting or gauze. They are filled up with a water solution containing appropriate quantities of all mineral elements. The solution is changed from time to time. It has a mechanism for aeration and circulation. Thus, plants grow without soil and organic matter.
54. (1)
Micronutrients are those essential elements which are required by plants in small amounts, less than 10 mmol/kg or 1.0 mg/gm of dry matter. Microelements are mostly involved in the functioning of enzymes, as cofactors or metal activators. They are eight in number Fe, Zn, Mn, B, Cu, Mo, Cl and Ni.
55. (3)
Magnesium is a macronutrient.
56. (3)
Potassium helps in maintenance of cell turgidity and opening and closing of stomata.
57. (1)
Iron is absorbed by plants in the form of ferric ions.
58. (2)
Chlorosis, late flowering and necrosis are deficiency diseases. Chlorosis is loss of chlorophyll due to deficiency of N, K, Mg and S. Late flowering is due to deficiency of N, K, Mg and S. Late flowering is due to deficiency of N, S and Mo. Necrosis is the death of tissues which occurs due to deficiency of Ca, Mg, Cu and K. Etiolation refers to the characteristic

growth of green plants in absence of light. It is caused in green plants when they are grown in dark. Mineral deficiency is not involved in such plants.

59. (3)

Calcium (Ca) is necessary for the proper growth and functioning of root tips and meristems.

60. (4)

Macronutrients are essential elements which are present in easily detectable quantities, 1-10 mg per gram of dry weight. The macronutrients include carbon, hydrogen, oxygen, nitrogen, phosphorous, sulphur, potassium, calcium and magnesium. Micronutrients or trace elements, are needed in very small amounts (equal or less than 0.1 mg/gm of dry matter). These include iron, manganese, copper, molybdenum, zinc, boron, chlorine and nickel.

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