



BIOLOGY

BOOKS - MBD BIOLOGY (ODIA ENGLISH)

MINERAL NUTRITION

Question Bank

1. Nitrite is converted to nitrate by:

- A. Nitrosomonas
- B. Nitrobacter
- C. Pseudomonas
- D. Clostridium

Answer: B

Watch Video Solution

2. Zn, Mo, Fe, Cu are:

A. Trace elements

- B. Non-essential elements
- C. Macro nutrients
- D. None of these

Answer: A

Watch Video Solution

3. Nitrifying bacteria are able to:

A. Convert atmospheric nitrogen into

soluble forms

B. Convert ammonia to nitrate

C. Nitrate to nitrogen

D. None of these

Answer: B

Watch Video Solution

4. An essential element is that-which:

A. Improve health of the plant

B. Is irreplaceable and indispensable for

growth of plants

C. Is found in plant ash

D. Is available in the soil

Answer: B

Watch Video Solution

5. A plant requires magnesium for:

A. Protein synthesis

B. Chlorophyll synthesis

C. Cell wall development

D. Holding cells together

Answer: B

Watch Video Solution

6. Which one of the following elements is not

an essential micronutrient for plant growth?

B. Cu

C. Ca

D. Mn

Answer: C

Watch Video Solution

7. Which one of the following is not a micronutrient for plant growth?

B. B

C. Zn

D. Cr

Answer: D

Watch Video Solution

8. Which of the following is a microelement ?

A. Potassium

B. Phosphorus

C.

D. Magnesium

Answer: C

Watch Video Solution

9. An anaerobic bacteria capable of atmospheric N_2 fixation is:

A. Chlorobium

B. Azotobacter

C. Rhodospirillum

D. Clostridium

Answer: D



10. Maximum absorption of mineral salts takes

place in:

A. Root hair region

B. Meristematicregion

C. Root cap region

D. Maturation region

Answer: A



11. The slow rate of decomposition of fallen

logs in nature is due to their:

A. anaerobic environment around them

B. low cellulose content

C. low moisture content

D. poor nitrogen content

Answer: D

Watch Video Solution

12. Which of the following is widely used as a

successful biofertiliser in Indian rice field ?

A. Rhizobium

B. Acacia arabica

C. Acalypha indica

D. Azolla pinnata

Answer: D



13. Which of the following is essential for

chlorophyll synthesis ?

A. Mn

B. Mg

C. Cu

D. Fe

Answer: B



14. Find out odd one from the following options by considering its role in nitrogen cycle.

A. Clostridium

B. Nostoc

C. Pseudomonas

D. Rhizobium

Answer: C

Watch Video Solution

15. Which of the following is not an essential

element for Plants ?

A. Iron (Fe)

B. Manganese (Mn)

C. Zinc (Zn)

D. lodine (l)

Answer: D

Watch Video Solution

16. In root nodules of legumes, leghaemoglobin is important because:

A. It transports oxygen to the root nodule

B. It acts as an oxygen scavenger

C. It provides energy'to the nitrogen fixing

bacterium

D. It acts as a catalyst in transamination

Answer: B

Watch Video Solution

17. Necrosis, or death of tissue particularly leaf

tissue is due to the deficiency of:

A. N, K, S

B. N, K, Mg and Fe

C. Mn, Zn and Mo

D. Ca, Mg, Cu and K

Answer: D

Watch Video Solution

18. Which one of thefollowing is a denitrifying

bacterium?

A. Nitrobacter

- B. Nitrosomonas
- C. Pseudomonas
- D. E.coli

Answer: C



19. Which of the following is the function of

nitrifying bacteria ?

A. Oxidize NH_3 ' ightarrow NO_3^-`

B. Converts NO_3^- to NH_3

C. Oxidize NH_3 to NH_4

D. Converts NO_3^- to N_2

Answer: A

Watch Video Solution

20. Which of the following is a free living nitrogen fixing bacteria ?

A. Rhizobium

- B. Azotobacter
- C. Frankia
- D. Anabaena

Answer: B



21. Which one of the following elements is not

an essential micronutrient for plant growth ?

A. Iron

- B. Manganese
- C. Cadruium
- D. Phosphorus

Answer: C



22. Free living bacteria that can fix N_2 from soil is:

A. Clostridium

- B. Azotobacter
- C. Beijerinckia
- D. All of these

Answer: D

Watch Video Solution

23. Micronutrients are:

A. Mn, Ni, Zn

B. O, Cu, B

C. Mg, Mn, Mo

D. Ca, S, Fe

Answer: A

Watch Video Solution

24. An example of symbiotic nitrogen fixing

bacterium is_____.

A. Azotobacter

B. Rhizobium

C. Methanobacterium

D. Clostridium

Answer: B

Watch Video Solution

25. The root nodules formed by leguminous

plants have a red pigment called_____.

A. Haemoglobin

B. Phycocanin

- C. Leghaemoglobin
- D. Anthocyanin

Answer: C

Watch Video Solution

26. Which of the following is a model metal

hyper-accumulator plant?

A. Nicotiana tabacum

B. Arabidopsis

C. Thalapsi goesinigense

D. Daucos carota

Answer: B

Watch Video Solution

27. 'Exanthema' in citrus trees is as a result of

the deficiency of:

A. Boron

B. Copper

C. Calcium

D. Molybdenum

Answer: A

Watch Video Solution

28. Drought spot of apples is caused by the

deficiency of_____.

A. Copper

B. Nitrogen

C. Boron

D. Magnesium

Answer: C

Watch Video Solution

29. In nitrate assimilation, reduction of nitrate

to ammonia is mediated by:

A. Nitrate reductase

B. Nitrite reductase

C. Both (a) and (b)

D. None of these

Answer: C

Watch Video Solution

30. Roots can absorb minerals from the soil

when they are in:

A. Solid state

B. Liquid state

C. lonic state

D. Gaseous state

Answer: C

Watch Video Solution

31. Which of thefollowing convert the ammonia to nitrites ?

A. Nitrosomonas

B. Nitrococcus

C. Nitrobacter

D. Both: (a) & (b)

Answer: D

Watch Video Solution

32. Which is required for nitrogen fixation ?

A. Mo

B. Zn

C. Mn

D. Mg

Answer: A



33. An essential element:

A. occurs in plant ash

B. Is irreplaceable and indispensable for

plant growth

C. is absorbed by root

D. All of the above

Answer: B



34. Which of the following is widely used as a

successful biofertiliser in Indian rice field ?

A. Nostoc

B. Azolla

C. Trifolium

D. All of these

Answer: D



35. Function of Mg and Fe is:

- A. Synthesis of chlorophyll
- B. Synthesis of proteins
- C. Synthesis of fats

D. Synthesis of organic acids

Answer: A

Watch Video Solution

36. Which of the following is macro nutrient?

A. Ca

B. Mn

C. Zn

D. Cu





37. Which of the following is trace element?

A. Zn

B. Ca

C. P

D. Mg

Answer: A



38. Which of the following are all micronutrients?

A. Cu, Mn, Mo and B

B. Cu, Zn, Mg and B

C. Cu,Ca, Mn and B

D. Cu, Mg, P and B

Answer: A





39. The set of three elements included fully in micro nutrients:

A. Na, Cu, Mg

B. Fe, Zn, Cu

C. Fe, K, Ca

D. Mn, O, P

Answer: B

40. The central atom of the porphyrin like ring of chlorophyll is:

A. Iron

B. Magnesium

C. Manganese

D. Molybdenum

Answer: B

41. Which is essential for root hair growth?

A. Zn

B. Ca

C. Mo

D. S

Answer: C



42. The deficiencies of micronutrients not only affect growth of plants but also vital functions, Which group of three elemeµts shall affect most, both photosynthetic and mitochondrial electron transport ?

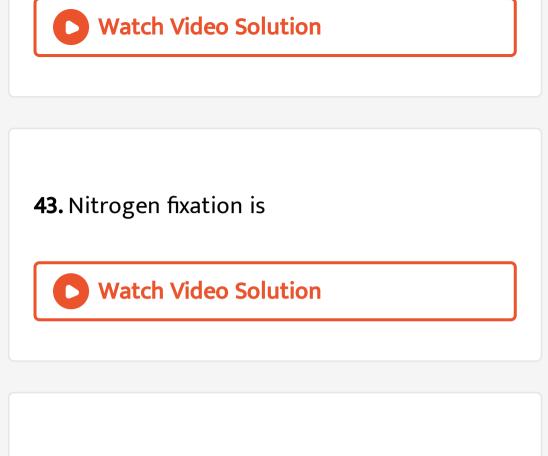
A. Co, Ni, Mo

B. Ca, K, Na

C. Mn, Co, Ca

D. Cu, Mn, Fe

Answer: D



44. The components of nitrogenase and

nitrate reductase is:

A. Mo

B. Mg

C. Mn

D. Fe

Answer: A



45. Farmers in a particular region were concerned that pre-mature yellowing of leaves of a pulse crop might cause decrease in the yield. Which treatment could be most beneficial to obtain maximum seed yield ?

A. Application of iron and magnesium to

promote synthesis of chlorophyll.

B. Frequent irrigation of the crop.

- C. Treatment or the plants with cytokinins along with a small dose of nitrogenous fertilizer.
- D. Removal of yellow leaves and spraying

the remaining green leaves with 2,4,5-

trichlorophenoxy acetic acid.





46. Which of the following is a microelement ?

A. Zn

B. Mo

C. Mn

D. Ca

Answer: D

47. The function of leghaemoglobin during biological nitrogen fixation in root nodules of legumes is to:

A. Convert atmospheric N_2 to NH_3

B. Convert ammonia to nitrite

C. Transport oxygen for activity of

nitrogenase

D. Protect nitrogenase from oxygen

Answer: D



48. Deficiency of which of the following can cause yellowing of intravenous region of leaves?

A. Calcium

B. Potassium

C. Copper

D. Phosphorus

Answer: B



49. If the size of fruits diminishes in plants,

which mineral ion should be added to soil ?

A. Calcium

B. Boron

C. Chlorine

D. Copper

Answer: C





50. Which is a carrier for mineral nutrients ?

A. Leucine

B. Lecithin

C. Choline

D. Tubulin

Answer: B

51. Which theory explains active absorption of

minerals?

A. Mass flow

B. Ion exchange

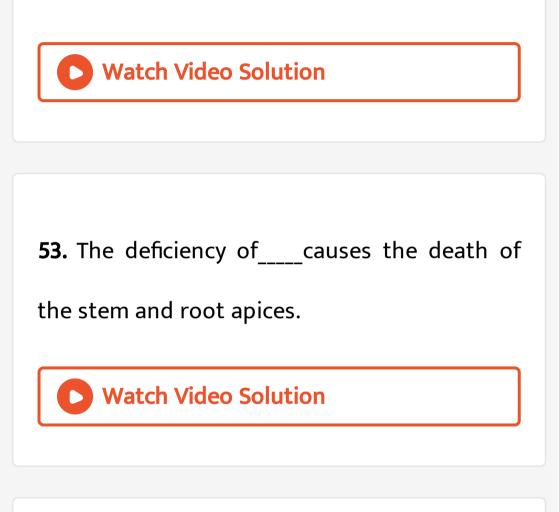
C. Cytochrome pump

D. Facilitated diffusion

Answer: C

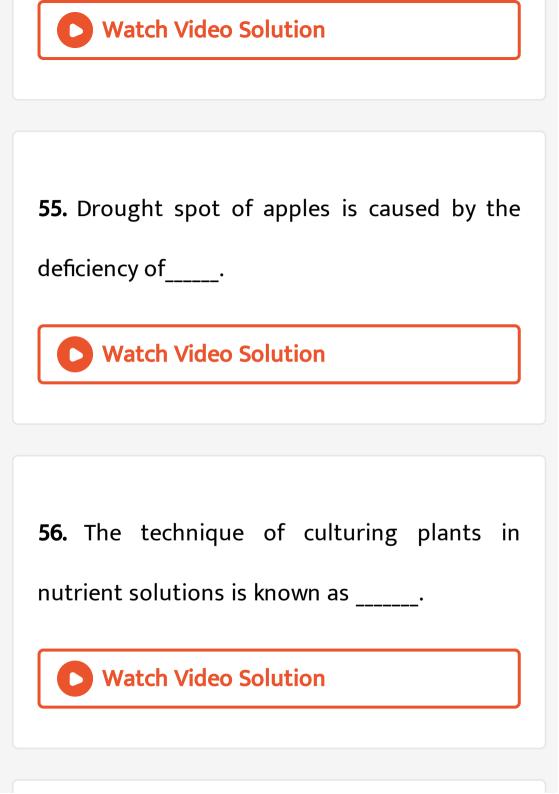
52. The deficiency of magnesium results in____

of the plants.



54. The deficiency of copper in Citrus results in

disease known as _____.

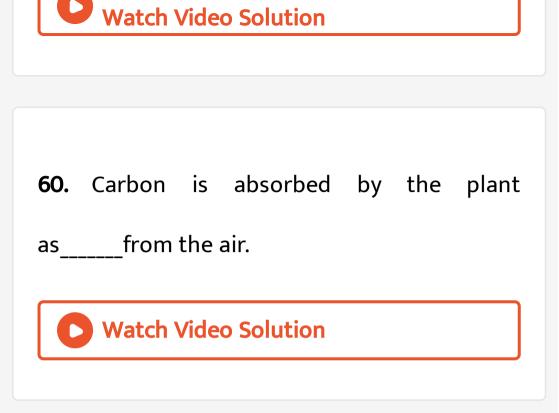


57. Abbreviation NPK means
Watch Video Solution
58. The conversion of ammonia to nitrates is called
Watch Video Solution

59. Elements which are required by the plants

in minute quantities are called _____.



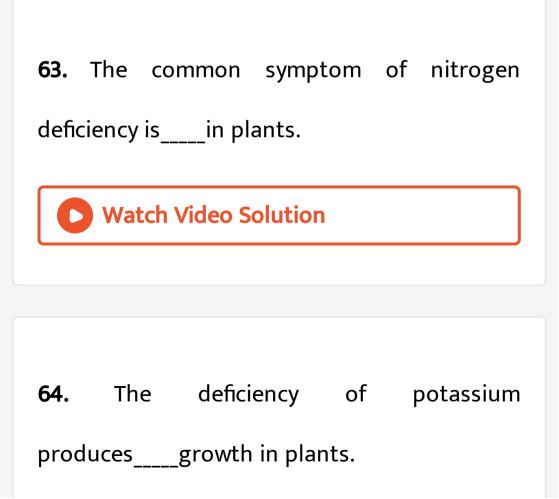


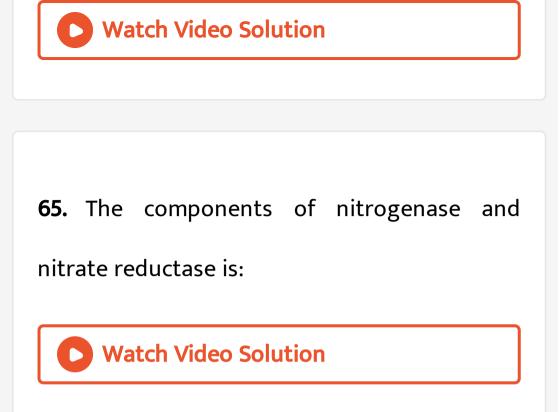
61. Elements which are required in large

quantities by the plants are called_____.

62. Oxygen is absorbed-in the molecular form

the____by the plant.





66. Excessive nitrogen supply to the plants reduces the stem strength.

A. True

B. False

C.

D.

Answer: Root

Watch Video Solution

67. What is the term used for the large specialized cell present in Cyanobacteria which is responsible for nitrogen fixation ?



nitrogen fixation is_____.



69. The pigment that helps nitrogen fixation in

root nodules of leguminous plants is_____.



70. Conversion of nitrate ion into ammomum

ion by soil bacteria is called



71. WRITE SHORT NOTES ON: Trace elements

Watch Video Solution

72. WRITE SHORT NOTES ON: Biological

nitrogen fixation



73. WRITE SHORT NOTES ON: Symbiotic

nitrogen fixation

Watch Video Solution

74. DISTINGUISH BETWEEN: Macronutrients

and micronutrients

75. DISTINGUISH BETWEEN: Symbiotic and

asymbiotic N_2 - fixation.

