1. Carbon become available to crop plants in the form of
(a) Amino acids (b) Carbonates
(c) Carbon dioxide (d) Element carbon

2. Death of stem and root tips occur due to deficiency of
(a) Phosphorus (b) Calcium (c) Nitrogen (d) Carbon

3. Plants requiring two metallic compounds (minerals) for chlorophyll synthesis, are
(a) *Fe* and *Ca* (b) *Fe* and *Mg*
(c) *Cu* and *Ca* (d) *Ca* and *K*

4. Which of the following is essential mineral element and is not a constituent of any enzyme but stimulate the activity of many enzymes
(a) *Zn* (b) *Mg* (c) *Mn* (d) *K*

5. In plants a common symptom caused by deficiency of *P*, *K*, *Ca* and *Mg* is the
(a) Bending of leaf tip
(b) Formation of anthocyanin
(c) Poor development of vasculature
(d) Appearance of dead necrotic areas

6. Chlorosis occurs when plants are grown in
(a) Dark
(b) Shade
(c) Strong light
(d) *Fe* free medium or (due to lack of iron or magnesium)

7. In nature, organic compounds invariably contain
(a) Carbon (b) Phosphorus
(c) Sulphur (d) Magnesium

8. Deficiency symptoms of nitrogen and potassium are visible first in.
(a) Roots (b) Buds
(c) Young leaves (d) Senescent leaves

9. Which of the four most abundant elements in most plants (C, H, O and N), does a terrestrial green plant procure mainly through its roots from the soli?
(a) H and O (b) C and O (c) H and N (d) O and N

10. Which one of the following symptoms is not due to manganese toxicity in plants?
(a) Deficiency in both iron and nitrogen is induced.
(b) Calcium translocation in shoot apex is inhibited.
(c) Appearance of brown spot surrounded by chlorotic veins.
(d) None of the above.

11. Plants requiring two metallic compounds (minerals) for chlorophyll synthesis, are Or One mineral activates the enzyme catalase and the other is a constituent of the ring structure of chlorophyll. These minerals are respectively.
(a) Fe and Ca (b) Fe and Mg (c) Cu and Ca (d) Ca and K

12. In which of the following, all three are macronutrients
(a) Boron, zinc, manganese
(b) Iron, copper, molybdenum
(c) Molybdenum, magnesium, manganese
(d) Nitrogen, carbon, phosphorus

13. With reference to soil critical element means
(a) Nitrogen and phosphorus
(b) Nitrogen and potassium
(c) Potassium and chlorine
(d) Nitrogen, phosphorus and potassium

14. By the use of sulphur
(a) Development of root is normal
(b) Root development is reduced
(c) Root development is increased
(d) Root dry

15. Micro-nutrients are
(a) Less important in nutrition than macro-nutrients
(b) As important in nutrition as macro-nutrients
(c) May be omitted from culture media without any detrimental effect on the plant
(d) Called micro because they play only minor role in nutrition

16. Deficiency of molybdenum cause
(a) Poor development of vasculature
(b) Bending of leaf tip
(c) Yellowing of leaves
(d) Mottling and necrosis of leaves

17. Which of the following is a micro-nutrient or a trace element
(a) *Mg* (b) *Zn* (c) *Ca* (d) *P*

18. Photosynthetic photolysis of water takes place in presence of
(a) *Mn* (b) *Cl*
(c) Both (a) and (b) (d) None of the above

19. Copper is the component of
(a) Cytochrome oxidase (b) Plastocyanin
(c) Both (a) and (b) (d) None of the above

20. The cauliflower become brown due to deficiency of
(a) Sodium (b) Calcium
(c) Boron (d) Nitrogen

21. Apple fruit develop internal cork due to deficiency of
(a) Magnesium (b) Iron
(c) Manganese (d) Boron

22. Top rot of tobacco is due to deficiency of
(a) Iron (b) Manganese
(c) Molybdenum (d) Boron

23. Mottle leaf in citrus plants is due to deficiency of
(a) Boron (b) Magnesium (c) Zinc (d) None of these

24. The deficiency of molybdenum induces

(a) Citrus die back disease
(b) Pea rossete disease
(c) Cauliflower whip tail disease
(d) White bud of maize

25. Which of the following micro-element is absorbed by leaves
(a) Phosphorous (b) Boron
(c) Zinc (d) Iron

26. Symptoms of manganese deficiency can be overcome by the use of
(a) Manganese sulphate (b) Manganese dioxide
(c) Colloidal manganese (d) None of these

27. Elements which maintains the solubility of calcium in the cells
(a) Manganese (b) Copper
(c) Iron (d) Boron

28. Boron is absorbed as
(a) Borate ions (b) Solution in water
(c) As boron trichloride (d) None of the above

29. Which one is not a trace element / micronutrient –
(a) Mn (b) Cu (c) Mo (d) K

30. Minerals associated with redox reaction are –
(a) Na, Cu (b) N, Cu (c) Fe, Cu (d) Ca, Fe

1. (c)
2. (b)

3. (b)

4. (d)

5. (d)

6. (d)

7. (a)

8. (d)

9. (c)

10. (a)

11. (b)

12. (d)

13. (d)

14. (c)

15. (b)

16. (d)

17. (b)

18. (c)

19. (c)

20. (c)

21. (d)

22. (d)

23. (c)

24. (c)

25. (c)

26. (a)

27. (d)

28. (a)

29. (c)

30. (c)