NEET BIOLOGY 2018-19 - Chennai

Test ID : 035
Number of questions: 150 **Test date: 12.04.2019**
Name: _____ **Time**: 3HRS
ID No: _____
Negative Marks : 4 marks for correct attempt & 1 mark deducted for every wrong attempt.

1. Which is essential for the growth of root tip?
   (a) Zn
   (b) Fe
   (c) Ca
   (d) Mn

2. In which of the following all three are macronutrients?
   (a) Molybdenum magnesiurn , manganese
   (b) Nitrogen, nickel , phosphorus
   (c) Boron, zinc, manganese
   (d) Iron, copper, molybdenum

3.The oxygen evolved during photosynthesis, comes from water molecules.which one of the following pairs of elements is involved in this reaction?
   (a) Magnesium and Molybdenum
   (b) Magnesium and Chlorine
   (c) Manganese and Chlorine
   (d) Manganese and Potassium

4. During biological nitrogen fixation, inactivation of nitrogenase by oxygen poisoning is prevented by
   (a) Carotene
   (b) Cytochrorne
   (c) Leghaemoglobin
   (d) Xanthophyll

5. Minerals known to be required in large amounts for plant growth include
   (a) potassium, phosphorus, selenium,boron
   (b) magnesium, sulphur, iron, zinc
   (c) phosphorus, potassium, sulphur, calcium
   (d) calcium, magnesium, manganese, copper.

6. Deficiency symptoms off `nitrogen and potassium are visible first in
   (a) senescent leaves
   (b) young leaves
   (c) roots
   (d) buds

7. The first stable product of fixation of atmospheric nitrogen in leguminous plants is

(a) NO_3^-
(b) glutamate
(c) NO_2^-
(d) Ammonia

8. Specialized cells for fix atmospheric nitrogen in Nostoc are

(a) heterocysts
(b) hormogonia
(c) nodules
(d) akinetes

9. Which of the oil following elements is a constituent of biotin?

(a) Magnesium
(b) Calcium
(c) Phosphorus
(d) Sulphur

10. Which two distinct microbial processes are responsible for the release of fixed nitrogen as dinitrogen gas (N_2) to the atmosphere?

(a) Aerobic nitrate oxidation and nitrite reduction
(b) Decomposition of organic nitrogen and conversion of dinitrogen to ammonium compounds
(c) Enteric fermentation in cattle and nitrogen fixation by Rhizobium in root nodules of legumes
(d) Anaerobic ammonium oxidation and denitrification

11. Best defined function of manganese in green plants is

(a) photolysis of water
(b) Calvin cycle
(c) nitrogen fixation
(d) water absorption.

12. Which one of the following is correctly matched?

(a) Passive transport of nutrients - ATP
(b) Apoplast - plasmodesmata
(c) Potassium - Readily immobilisation
(d) Bakane of rice seedlings - F. Skoog

13. For its action, nitrogenase requires

(a) high input of energy
(b) light
(c) Mn^{2+}
(d) Super oxygen radicals

14. Which one of the following elements in plants is not remobilised?

(a) Phosphorus
(b) Calcium
(c) Potassium
(d) Sulphur

15. Nitrifying bacteria
    (a) oxidize ammonia to nitrates
    (b) convert free nitrogen to nitrogen compounds
    (c) convert proteins into ammonia
    (d) reduce nitrates to free nitrogen.

16. The function of leghaemoglobin in the root nodules of legumes is
    (a) inhibition of nitrogenase activity
    (b) oxygen removal
    (c) nodule differentiation
    (d) expression of nif gene

17. Which one of the following helps in absorption of phosphorus from soil by plants?
    (a) Glomus
    (b) Rhizobium
    (c) Frankia
    (d) Anabaena

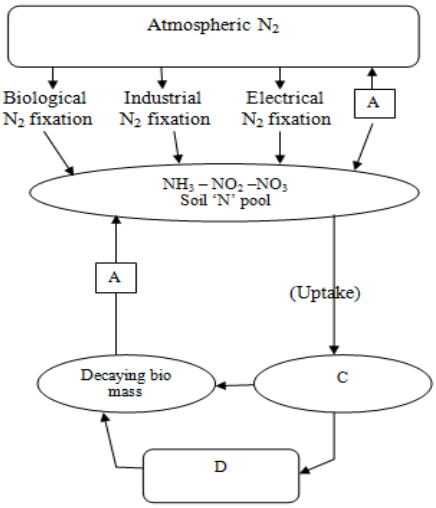
18. Which one of the following is not an essential mineral element for plants while the remaining three are?
    (a) Iron
    (b) Manganese
    (c) Cadmium
    (d) Phosphorus

19. An element playing important role in nitrogen fixation is
    (a) molybdenum
    (b) copper
    (c) manganese
    (d) zinc.

20. Which one of the following is not a micronutrient?
    (a) Molybdenum
    (b) Magnesium
    (c) zinc
    (d) Boron

21. Leguminous plants are able to fix atmospheric nitrogen through the process of symbiotic
    nitrogen fixation. which one of the following statements is not correct during this process
    of nitrogen fixation?
    (a) Leghaemoglobin scavenges oxygen and is pinkish in colour.
    (b) Nodules act as sites for nitrogen fixation.
    (c) The enzyme nitrogenase catalyses the conversion of atmospheric N_2 to N_3.
    (d) Nitrogenase is insensitive to oxygen.

22. Study the cycle shown below and select the option which gives correct words for all the four blanks A, B. C and D.



A	B	C	D
a)Nitrification	Ammoni-fication	Animals	plants
b)Denitriffcation	Ammoni-fication	plants	Animals
c)Nitrification	Denitriffcation	Animals	plants
d)Denitriffcation	Nitrification	plants	Animals

23. Manganese is required in
    (a) plant cell wall formation
    (b) photolysis of water during photosynthesis
    (c) chlorophyll synthesis
    (d) nucleic acid synthesis

24. Which one of the following elements is not an essential micronutrient for plant growth?
    (a) Zn
    (b) Cu
    (c) Ca
    (d) Mn

25. A plant requires magnesium for
    (a) protein synthesis
    (b) chlorophyll synthesis
    (c) cell wall development
    (d) holding cells together

26. Sulphur is an important nutrient for optimum growth and productivity in
    (a) oilseed crops
    (b) pulse crops
    (c) cereals
    (d) Fibre crops.

27. The deficiencies of micronutrients, not only affects growth of plants but also vital functions such as photosynthetic and mitochondrial electron flow. Among the list given below, which group of three elements 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

28. If by radiation all nitrogenase enzyme are inactivated, then there will be no
    (a) fixation of nitrogen in legumes
    (b) fixation of atmospheric nitrogen
    (c) conversion from nitrate to nitrite in legumes

(d) conversion from ammonium to nitrate in soil.

29. Gray spots of oat are caused by deficiency of
(a) Cu
(b) Zn
(c) Mn
(d) Fe.

30. Boron in green plains assists in
(a) activation of enzymes
(b) acting as enzyme co-factor
(c) photosynthesis
(d) sugar transport

31. Choose the correct match.
Bladderwort, sundew, Venus fly trap
(a) Nepenthes, Dionea, Drosera
(b) Nepenthes, Utricularia, vanda
(c) Utricularia, Drosera,Dionea
(d) Dionea,Trapas,vanda

32. Roots of which plant contains a red pigment which have affinity for oxygen?
(a) Carrot
(b) Soybean
(c) Mustard
(d) Radish

33. Which aquatic fern performs nitrogen fixation?
(a) Azolla
(b) Nostoc
(c) Salvia
(d) Salvinia

34. Mg is a component of
(a) chlorophyll
(b) cytochrome
(c) haemoglobin
(d) haemocyanin

35. Plants take zinc in the form of
(a) $ZnSO_4$
(b) Zn^{++}
(c) ZnO
(d) Zn

36. When the plants are grown in magnesium deficient but urea rich soil, the symptoms expressed are
(a) yellowish leaves
(b) colourless petiole
(c) dark green leaves
(d) shoot apex die

37. Which of the following is not caused by deficiency of mineral nutrition?
(a) Etiolation
(b) Shortening of internode
(c) Necrosis
(d) Chlorosis

38. Which one of the following elements is almost non-essential for plants?
(a) Zn

(b) Na
(c) Ca
(d) Mo

39. Which of the following elements plays an important role in biological nitrogen fixation?
(a) Copper
(b) Molybdenum
(c) Zinc
(d) Manganese

40. Which one is an essential mineral not constituent of any enzyme but stimulates the activity of many enzymes?
(a) Zn
(b) Mn
(c) K
(d) Mg

41. Phosphorous and nitrogen ions generally get depeleted in soil because they usually occur as
(a) neutral ions
(b) negatively charged ions
(c) positively charged ions
(d) both positively and negatively charged but disproportionate mixture

42. Which of the following absorb light energy for photosynthesis?
(a) Chlorophyll
(b) Water malecule
(c) O_2
(d) RuBP

43. In photosynthesis energy frm light reaction to dark reaction is transferred in the form of
(a) ADP
(b) ATP
(c) RuDP
(d) Chlorophyll

44. Which pigment absorbs the red and far-red light?
(a) cytochrome
(b) Phytochrome
(c) Carotenoids
(d) Chlorophyll

45. What is true for photolithotrophs?
(a) Obtain energy from radiations and hydrogen from organic compounds
(b) Obtain energy from radiations and hydrogen from inorganic compounds
(c) Obtain energy from organic compounds
(d) Obtain energy from inorganic compounds

46. Which pigment system is inactivated in red drop?
(a) PS-I and PS-1I
(b) Ps-I
(c) PS-II
(d) None of the above

47. Which pair is wrong?

(a) C3-maize

(b) C4-kranz anatomy

(c) Calvin cycle-PGA

(d) Hatch and Slack cycle - OAA

48. Which is the first CO_2 acceptor enzyme in C_4 plants?

(a) RuDP carboxylase

(b) Phosphoric acid

(c) RuBisCO

(d) PEP- carboxylase

49. For assimilation of one CO_2 molecule, the energy required in form of ATP and $NADPH_2$ are

(a) 2 ATP and 2 $NADPH_2$

(b) 5 ATP and 3 $NADPH_2$

(c) 3 ATP and 2 NADPH

(d) 18 ATP and 12 $NADPH_2$

50. For the synthesis of one glucose molecule the Calvin cycle operates for

(a) 2 times

(b) 4 times

(c) 6 times

(d) 8 times.