

140/2006

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. ✓ 'Red drop' phenomenon was discovered by :
(A) Hatch
(B) Benson
(C) Calvin
(D) Emerson ✓
2. ✓ It is an alternate pathway of reactions through which glucose is completely oxidized in animal and plant cells :
(A) Glycolate
(B) ✓ Hexose monophosphate shunt
(C) Crassulacean acid pathway
(D) EMP pathway
3. ✓ Non-protein part of the enzyme is called :
(A) Apoenzyme
(B) Holoenzyme
(C) ✓ Prosthetic group
(D) Exoenzyme
4. ✓ Plant growth can be measured with :
(A) Potometer
(B) Altimeter
(C) Spectrophotometer
(D) ✓ Auxanometer
- ✓ If germination of seed is affected by light resulting in dormancy, such seeds are called :
(A) Photonastic
(B) Phototropic
(C) Nyctinastic
(D) ✓ Photoblastic
6. The system of binomial nomenclature was introduced by :
(A) Aristotle
(B) Theophrastus
(C) Linnaeus ✓
(D) Roxburgh
7. ✓ Which of the following series is not included in polypetalae?
(A) Inferae ✓
(B) Thalamiflorae
(C) Disciflorae
(D) Calyciflorae

C

3
Polypetalae

[P.T.O.]

8. ✓ Papilionaceous corolla is found in :
 (A) Lamiaceae
 (C) Palmae
 (B) ✓ Leguminosae
 (D) Umbelliferae
9. ✓ Apocarpous gynoecium is present in :
 (A) ✓ Annona
 (C) Phaseolus
 (B) Hibiscus
 (D) Coriandrum
10. A dry dehiscent fruit developed from a monocarpellary superior ovary :
 (A) Caryopsis ✓
 (C) Capsule
 (B) Legume
 (D) Achene in dehiscent
11. ✓ The source plant of cotton is :
 (A) ✓ Gossypium arboreum
 (C) Corchorus capsularis
 (B) Musa sapiendum
 (D) Agave Americana
12. One of the following is not a cereal :
 (A) Maize ✓
 (C) Paddy ✓
 (B) Wheat ✓
 (D) Ragi ✓ *millet*
13. ✓ Identify the medicinal plant among the following :
 (A) Manihot
 (C) Anthurium
 (B) Oryza
 (D) ✓ Eclipta
14. ✓ Elettaria cardamomum belongs to :
 (A) Cereals
 (C) Pulses
 (B) ✓ Spices
 (D) Vegetable
15. ✓ Identify the tuber crop from the following :
 (A) Musa
 (C) Sida
 (B) Boerhaavia
 (D) ✓ Manihot
16. ✓ Protoplasmic movement is spoken of as :
 (A) Cyclosis ✓
 (C) Jerking
 (B) Translocation
 (D) Migration

17. Plastids acting as starch storing bodies are called :
 (A) Elaioplasts (B) Amyloplasts
 (C) Chloroplasts (D) Chromoplasts
18. If deposition of lignin transversely in the form of rods or rungs of a ladder, it is known as :
 (A) Annular — as rings (B) Reticular — as network
 (C) Scalariform — as transverse nets (D) Pitted — except in the region of pits → extensive thickening.
19. Needle like crystals of calcium oxalate in plant tissues are called :
 (A) Cystolith (B) Raphides ✓
 (C) Inulin (D) Sphaerocrystals
20. Plant tissue in which cells are much thickened at the corners against the intercellular spaces :
 (A) Parenchyma (B) Collenchyma ✓
 (C) Sclerenchyma (D) Aerenchyma
21. The type of vascular bundle in which phloem is surrounded by xylem is known as :
 (A) Radial (B) Amphivasal ✓
 (C) Amphicribal (D) Collateral
22. A closed vascular bundle is one in which :
 (A) Cambium is absent ✓ (B) Cambium is present
 (C) Xylem is present (D) Phloem is absent
23. Collateral closed bundles are characteristic of :
 (A) Monocot stem ✓ (B) Dicot root
 (C) Monocot root (D) Dicot stem
24. The secondary meristem arising in the cortex is known as :
 (A) Phelloderm (B) Periderm
 (C) Phellogen (D) Phellum
25. Pure line theory was proposed by :
 (A) Kolereuter (B) Williams
 (C) Johannsen ✓ (D) Fairchild

26. Pioneering Indian plant breeder in wheat crop is :
 (A) T.S. Venkatraman (B) M.S. Swaminathan
 (C) K.C. Mehta (D) B.P. Singh
27. Indian Agricultural Research Institute is located in :
 (A) Lucknow (B) Coimbatore
 (C) Kasargod (D) New Delhi ✓
28. The excess vigour shown by the hybrid over their parents is called :
 (A) Dominance (B) Pleiotropism
 (C) ✓ Heterosis (D) Epistasis
29. The character that facilitate self pollination is :
 (A) Herkogamy (B) Dichogamy
 (C) Cleistogamy (D) Heterostyly
30. The simplest amino acid is :
 (A) Tryptophan (B) ✓ Glycine
 (C) Aspartic acid (D) Valine
31. Fungus used in baking and brewing industry :
 (A) Penicillium (B) ✓ Saccharomyces
 (C) Streptomyces (D) Agaricus
32. Storage product in a fungal cell :
 (A) Glucose (B) ✓ Glycogen
 (C) Fructose (D) Sucrose
33. Fungi which live only on dead organic matter :
 (A) Facultative parasite (B) Obligate parasite
 (C) ✓ Obligate saprophyte (D) Facultative saprophyte
34. A photosynthetic bacterium :
 (A) ✓ Rhodospirillum (B) Azotobactor
 (C) Rhizobium (D) Clostridium

43. Rapid rotting of the stems of the seedlings at the ground level :
 (A) Canker (B) Pitting
 (C) Rotting (D) Damping off
44. Bunchy top of Banana is a :
 (A) Viral disease (B) Bacterial disease
 (C) Fungal disease (D) Deficiency disease
45. Causal organism of Blight of rice :
 (A) *Entyloma oryzae* (B) *Sclerospora oryzae*
 (C) *Xanthomonas oryzae* (D) *Ephelis oryzae*
46. DPD of a cell with OP = 25 atm. and TP = 15 atm. is :
 (A) 10 atm. (B) 40 atm.
 (C) -10 atm. (D) -40 atm.
47. Loss of water in liquid form from plants is :
 (A) Transpiration (B) Evaporation
 (C) Bleeding (D) Guttation
48. Xylem elements are related to :
 (A) Ascent of sap (B) Translocation of food
 (C) Transmission of impulses (D) Transport of gases
49. Which of the following is not a micronutrient?
 (A) Zinc (B) Calcium
 (C) Molybdenum (D) Boron
50. Maximum photosynthesis takes place in :
 (A) Green light (B) Blue light
 (C) Red light (D) Violet

51. In amphioxus velar tentacles are found :
 (A) at the tip of oral hood
 (B) ventral side of oral hood
 (C) on velum directed outwards
 (D) on velum directed inwards
52. Bidder's canal exists in frog :
 (A) It is a part of kidney
 (B) It is a part of vas-deferens
 (C) It is a part of vas-deferentia
 (D) None of the above
53. 'Pigeon milk' is formed from :
 (A) Glands of alimentary canal
 (B) Epithelial lining of crop
 (C) Special glands of buccal cavity
 (D) Glands of stomach
54. Deficiency of retinol causes :
 (A) Osteomalacia
 (B) Necrosis
 (C) Nyctalopia
 (D) Encephalomalacia
55. Pyridoxal phosphate is formed from :
 (A) Vit. B₂
 (B) Vit. B₃
 (C) Vit. B₅
 (D) Vit. B₆
56. Perniceous anaemia is caused by the deficiency of :
 (A) Vit. B₁
 (B) Vit. A
 (C) Vit. B₁₂
 (D) Vit. B₄
57. Hypoxia :
 (A) Total lack of oxygen
 (B) A condition when the body gets insufficient amount of O₂
 (C) Inability of Hb to form HbO₂
 (D) Inability of HbO₂ to dissociate into Hb and O₂
58. Mountain sickness is characterized by :
 (A) Increased pressure in blood
 (B) PO₂ at high altitudes is less and the blood does not get enough O₂
 (C) Loss of consciousness
 (D) PO₂ at high altitudes is high and the blood cells are destroyed