

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 ✓ millets
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

140/2006

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

140/2006

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

140/2006

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. B<sub>2</sub>  
 (B) Vit. B<sub>3</sub>  
 (C) Vit. B<sub>5</sub>  
 (D) Vit. B<sub>6</sub>
56. Perniceous anaemia is caused by the deficiency of :  
 (A) Vit. B<sub>1</sub>  
 (B) Vit. A  
 (C) Vit. B<sub>12</sub>  
 (D) Vit. B<sub>4</sub>
57. Hypoxia :  
 (A) Total lack of oxygen  
 (B) A condition when the body gets insufficient amount of O<sub>2</sub>  
 (C) Inability of Hb to form HbO<sub>2</sub>  
 (D) Inability of HbO<sub>2</sub> to dissociate into Hb and O<sub>2</sub>
58. Mountain sickness is characterized by :  
 (A) Increased pressure in blood  
 (B) PO<sub>2</sub> at high altitudes is less and the blood does not get enough O<sub>2</sub>  
 (C) Loss of consciousness  
 (D) PO<sub>2</sub> at high altitudes is high and the blood cells are destroyed

C