BIOTECHNOLOGY

(Final)

1. Syconus fruit develops from

   (A) catkin (B) verticillaster
   (C) hypanthodium (D) cyathium

2. The term protoplasm was coined by

   (A) Robert Hooke (B) Dujardin
   (C) Robert Brown (D) Purkinje

3. Both heterospory and circinate ptyxis occur in

   (A) dryopteris (B) pinus
   (C) cycas (D) funaria

4. Plant hormone causing abscission of leaves, senescence, bud dormancy and inhibition of cell division is

   (A) IAA (B) ethylene
   (C) cytokinins (D) ABA

5. Chlorosis in plants occurs due to

   (A) high sunlight intensity
   (B) low sunlight intensity
   (C) absorption of yellow pigment from the soil
   (D) deficiency of Mg and Fe in the soil

6. Gasohol is

   (A) 20% ethanol + 80% petrol
   (B) 20% ethanol +70% petrol + 10% kerosene
   (C) 10% ethanol + 80% petrol + 10% kerosene
   (D) 10% ethanol + 90% petrol

7. Phytochrome is involved in

   (A) phototropism (B) photorespiration
   (C) photoperiodism (D) geotropism

8. Main function of lenticels is

   (A) transpiration (B) guttation
   (C) bleeding (D) gaseous exchange

9. Which of the following is used to determine the rate of transpiration in plants?

(A) Porometer/hygrometer
(B) Photometers
(C) Auxanometer
(D) Tensiometer/barometer

10. The protein part of enzyme is

(A) prosthetic group
(B) apoenzyme
(C) holoenzyme
(D) zymogen

11. Photo phosphorylation is the process in which

(A) CO_2 and O_2 unite
(B) Phosphoglyceric acid is produced
(C) aspartic acid is formed
(D) light energy is converted into chemical energy by production of ATP

12. In photosynthesis hydrogen is transferred from the light reactions to dark reactions by

(A) DPN
(B) DNA
(C) ATP
(D) NADP

13. The enzyme that fixes atmospheric CO_2 in C_4 Plants is

(A) PEP carboxylase
(B) hexokinase
(C) RuBP oxygenase
(D) hydrogrenase

14. Reserpine, is a drug extracted from

(A) *Brassica oleraceae*
(B) *Atropa belladonna*
(C) *Rauwolfia serpentine*
(D) *Digitalis purpurca*

15. Which of the following is an auxin receptor?

(A) ETRI
(B) CBPI
(C) ABPI
(D) GRE

16. In rice *Gibberella fujikuroi,* the fungus causes the

(A) foolish seedling disease of rice
(B) damping off seedling disease of rice
(C) fungal blight disease of rice
(D) rust disease of rice

17. Father of Botany, a pupil of Plato and friend of Aristotle was

(A) Antonie Philips Van Leeuwenhoek
(B) Caspard Bauhin
(C) Charles Darwin
(D) Theophrastus

18. The female genital pore of *Pheretima posthuma* is located upon which segment?

(A) 14^{th} (B) 16^{th}
(C) 18^{th} (D) 15^{th}

19. Polyp phase is absent in

(A) Hydra (B) Physalia
(C) Aurelia (D) Obelia

20. In a frog heart, there are cardiac muscles which consist of fibres called

(A) purkinje fibres (B) telodendria
(C) myonemes (D) columnae camae

21. LH and FSH are collectively called

(A) oxytocin (B) somatotrophins
(C) luteotrophic (D) gonadotrophins

22. In Ascaris, the coelom is

(A) Schizocoelom (B) Pseudocoelom
(C) True coelom (D) Haemocoelom

23. 'Turbellarians' are free living

(A) Nematodes (B) Cestodes
(C) Flat worms (D) Trematodes

24. The characteristic larva of phylum 'Coelenterata' is

(A) planula (B) cysticercus
(C) rhabdiform (D) wriggler

25. Podocytes are the cells, present in

(A) cortex of nephron
(B) inner wall of Bowmans capsule
(C) outer wall of Bowmans capsule
(D) wall of glomerular capillaries

26. Tendons and ligaments are specialized types of

(A) nervous tissue (B) muscular tissue
(C) epithelial tissue (D) fibrous connective tissue

27. Kupffer cells are present in

(A) liver
(B) small intestine
(C) pancreas
(D) thyroid gland

28. The cyst wall of Euglena is made up of

(A) lipids
(B) histones
(C) carbohydrates
(D) lipoproteins

29. Which is classified as nonpolar covalent?

(A) The H-l bond in Hl
(B) The H-S bond in H_2S
(C) The P-Cl bond in PCl_3
(D) The N-Cl bond in NCl_3

30. What is the total number of electrons in the correct Lewis dot formula of the sulfite ion?

(A) 8
(B) 24
(C) 26
(D) 30

31. Which one of the following violates the octet rule?

(A) PCl_3
(B) CBr_4
(C) NF_3
(D) AsF_5

32. Arrhenius defined an acid as

(A) a species that can donate a proton
(B) a species that can accept a proton
(C) a source of OH ions in water
(D) a source of H^+ ions in water

33. In the Bronsted-Lowry system, a base is defined as

(A) a proton donor
(B) a hydroxide donor
(C) an electron-pair acceptor
(D) a proton acceptor

34. Which one of the following is an amphoteric metal hydroxide?

(A) KOH
(B) $Ba(OH)_2$
(C) $Pb(OH)_2$
(D) $Mg(OH)_2$

35. What are the units of k for the rate law : Rate = $k[A][B]^2$, when the concentration unit is mol/L?

(A) S^{-1}
(B) $L^2\ s^2\ mol^2$
(C) $L\ mol^{-1}\ S^{-1}$
(D) $L^2\ mol^2\ s^{-1}$

36. The half-life for a first-order reaction is 32 s. What was the original concentration if, after 2.0 minutes, the reactant concentration is 0.062 M?

(A) 0.84 M
(B) 0.069 M
(C) 0.091 M
(D) 0.075 M

37. When the concentration of reactants increased, the rate of the reaction shows an increase and is best explained as

(A) the average kinetic energy of molecules increased
(B) the frequency of molecular collisions increased
(C) the rate constant increases
(D) the activation energy increases

38. Which of the following is the strongest oxidizing agent?

(A) pb^{2+}
(B) l_2
(C) Ag^{+}
(D) Cu^{2+}

39. In the standard notation for a voltaic cell, the double vertical line "‖" represents

(A) a phase boundary
(B) a standard hydrogen electrode
(C) a wire connection
(D) a salt bridge

40. What makes carbon a unique element?

(A) Carbon comes in two forms, diamond and graphic.
(B) Carbon has two stable isotopes, carbon-12 and carbon-13.
(C) Carbon forms covalent bonds rather than ionic bonds.
(D) Carbon bonds to itself to form straight and branched chains and rings.

41. The hybridization of carbon atoms in alkanes is

(A) sp^3d^2
(B) sp^2
(C) sp^3
(D) sp^3d

42. The general formula for noncyclic alkene is

(A) C_nH_{2n+2}
(B) C_nH_{2n}
(C) C_nH_{2n-2}
(D) C_nH_{n+2}

43. Which one of the following is a secondary alcohol?

(A) CH_3CH_2OH
(B) CH_3OH
(C) $CH_3CH(OH)CH_3$
(D) $(CH_3)C_3OH$

44. Which isotope below has the highest nuclear binding energy per gram? (No calculation necessary)

(A) ^{4}He (B) ^{16}O
(C) ^{12}S (D) ^{55}Mn

45. A Geiger-Muller tube is a

(A) gas ionization detector (B) cloud chamber
(C) fluorescence detector (D) photographic detector

46. The half life of ^{231}pa is 3.25×10^{4} years. How much of an initial 10.40 microgram sample remains after 3.25×10^{5} years?

(A) 0.0102 micrograms (B) 0.240 micrograms
(C) 2.18 micrograms (D) 0.0240 micrograms

47. When ^{59}Cu undergoes positron emission, what is the immediate nuclear product?

(A) ^{59}Ni (B) ^{58}Ni
(C) ^{58}Cu (D) ^{59}Zn

48. A molecule that cannot be superimposed on its mirror image is said to exhibit which of the following?

(A) Geometrical isomerism (B) Optical isomerism
(C) Linkage isomerism (D) Coordination isomerism

49. In which of the following species does the transition metal ion have d^3 electronic configuration?

(A) $\left[Cr\left(NH_3\right)_6\right]^{34}$ (B) $\left[CoF_6\right]^{3-}$
(C) $\left[Co\left(OH_2\right)_6\right]^{2+}$ (D) $\left[Fe\left(CN\right)_6\right]^{3-}$

50. Generation of antibody diversity in vertebrate animals takes place through

(A) the presence of as many genes in the germ line as there are types of antibodies possible
(B) infection with bacteria carrying antibody genes
(C) infection with viruses carrying antibody genes
(D) rearrangement of DNA in tissues that go on to produce antibodies

51. Zinc finger proteins and helix-turn-helix proteins are

(A) types of DNA-binding proteins
(B) involved in the control of translation
(C) components of ribosomes
(D) part of the hemoglobin in blood cells

52. In sickle cell anemia, the basis of the malfunction of the hemoglobin molecule is

(A) faulty binding of the heme groups
(B) incorrect secondary structure
(C) substitution of a single amino acid
(D) increased affinity for oxygen

53. Rickets and Night blindness are caused due to the deficiency of

(A) Vitamin D, C and A
(B) Vitamin B_{12}, B_6 and C
(C) Vitamin B, D and A
(D) Vitamin B_{12}, B_6 and A

54. Avogadro's constant (NA) is

(A) $60.22140857(74)\times10^{23}$ mol^{-1}
(B) $6.022140857(74)\times10^{23}$ mol^{-1}
(C) $0.6022140857(74)\times10^{23}$ mol^{-1}
(D) None of the above

55. The plant with the smallest genome is

(A) *Oryza sativa*
(B) *Vigna mungo*
(C) *Arabidopsis thaliana*
(D) *Nicotiana tabacum*

56. The chemical molecule that signals the symbiosis is a

(A) Curcumin
(B) Flavonoid
(C) Cytochrome C
(D) Glycogen

57. The method of reproduction in pteriodophytes is through

(A) Seeds
(B) Spores
(C) Fruitlet
(D) Buds

58. Development of fruit without fertilization is called as

(A) Apocarpy
(B) Polycorpy
(C) Parthenocarpy
(D) Syncarpy

59. Grafting is not possible in monocotyledons because they

(A) have parallel bundles
(B) are herbaceous
(C) lack cambium
(D) have scattered vascular bundles

60. The process of photorespiration in plants leads to the

(A) release of enhanced levels of CO_2
(B) removal of waste metabolites
(C) lowering of the efficiency of photosynthetic carbon fixation
(D) enhanced plant biomass

61. Fluorescein diacetate is used to test pollen viability based on the activity of which one of the following enzymes?

(A) Amylase
(B) Esterase
(C) Catalase
(D) Decarboxylase

62. A red-fruited tomato plant was crossed with yellow colored fruit to produce 173 offsprings; 84 of which were yellow and 89 red. Determine the genotypes of parents.

(A) 1:1
(B) 1:3
(C) 1:3:3:1
(D) None of the above

63. Ribose has five carbon atoms, of which three are asymmetric. What is the maximum number of stereoisomers that may exist for ribose?

(A) 2
(B) 6
(C) 8
(D) 10

64. Which of the following types of plants operate the Hatch-Slack cycle?

(A) C3 plants
(B) C4 plants
(C) Tropical grasses
(D) Both (B) and (C)

65. Which vitamin is essential for blood clotting?

(A) Vitamin D
(B) Vitamin E
(C) Vitamin K
(D) Vitamin A

66. Phosphoric acid is tribasic with pKa's of 2.14, 6.86 and 12.4. The ionic form that predominates at pH 3.2 is

(A) H_3PO_4
(B) $H_2PO_4^-$
(C) HPO_4^{--}
(D) PO_4^{---}

67. One of the following is a unique feature of mammalian body

(A) Rib cage
(B) Homeothermy
(C) Four-chambered heart
(D) Presence of diaphragm

68. Which of the following is absent according to Oparin, on the primitive surface of Earth?

(A) CH_4
(B) O_2
(C) H_2
(D) H_2O

69. An isotope of hydrogen with radioactivity below is

(A) Protium
(B) Deuterium
(C) Titanium
(D) Tritium

70. Biogas is a mixture of

(A) 40% CH_4 and 60% CO_2 (B) 40% CH_4 and 60% C_2H_6
(C) 40% CO_2 and 60% C_2H_6 (D) 60% CH_4 and 40% 2

71. Prothrombin which helps in clotting of blood is released by

(A) Erythrocyte (B) Lymphocyte
(C) Monocyte (D) Platlet

72. Pollination by wind is called as

(A) Anemophily (B) Hydrophily
(C) Entomophily (D) Zoophily

73. Disaccharide molecules that contain β1- 4 glycosidic linkage include

(A) Sucrose and Maltose (B) Sucrose and Isomaltose
(C) Maltose and Isomaltose (D) Lactose and Cellobiose

74. The approximate life span of White Blood Cell is

(A) 20 days (B) 30 days
(C) 120 days (D) 300 days

75. In N-linked glycosylation, the oligosaccharide chain is attached to protein by

(A) Asn (B) Arg
(C) Ser (D) Thr

76. During lactic acid fermentation, net yield of ATP and NADH per glucose is

(A) 2 ATP and 2 NADH (B) 2 ATP and 0 NADH
(C) 4 ATP and 2 NADH (D) 4 ATP and 0 NADH

77. What are the metabolites implicated in affording abiotic tolerance of crop plants?

(A) Proline (B) Betaine
(C) Both (A) and (B) (D) Citrate

78. The most widely used program for multiple sequences alignment is

(A) BLAST (B) FASTA
(C) CLUSTAL (D) Chime

79. The isotope with half-life period of 14.3 days is

(A) ^{14}C (B) ^{32}P
(C) ^{131}I (D) ^{2}D

80. Initiation of hematopoiesis in adults occurs in the

(A) Liver
(B) Bone marrow
(C) Kidney
(D) Spleen

81. Which of the following amino acids has the maximum number of codons?

(A) Leucine
(B) Proline
(C) Tryptophan
(D) Glutamic acid

82. Which of the following is not an antigen presenting cell?

(A) Dendritic cell
(B) Macrophage
(C) B lymphocyte
(D) T lymphocyte

83. The circulating blood of a two month old breast-fed baby will contain maternal

(A) IgA
(B) IgD
(C) IgE
(D) IgG

84. Within chloroplasts, light is captured by

(A) thylakoids within grana
(B) grana within cisternae
(C) cisternae within grana
(D) grana within thylakoids

85. A blood group that has both A and B antigens but no antibodies is

(A) A
(B) AB
(C) O
(D) B

86. Pluripotent Embryonic stem cells are derived from

(A) Inner cell mass of blastocyst
(B) Trophectoderm cells
(C) Foetal tissue
(D) Foetal gonadal ridge

87. The portion of the brain which coordinates locomotory movements is

(A) cerebrum
(B) cerebellum
(C) medulla oblongata
(D) olfactory lobes

88. Proteins are "tagged" for degradation by cytosolic proteasomes through the covalent attachment of

(A) Ubiquitin
(B) Glutathione
(C) Glucose
(D) Clathrin

89. Binding of oxygen to haemoglobin follows

(A) Sigmoidal binding curve
(B) Parabolic binding curve
(C) Hyperbolic binding curve
(D) Linear binding curve

90. Paracrine signaling

(A) targets only nearby cells
(B) targets cells located at distant sites
(C) acts within the same cell
(D) requires cell-cell contact

91. Haploid plant cultures are obtained from

(A) Leaves
(B) Root tip
(C) Pollen grain
(D) Buds

92. Which one of the following is the most suitable example of a point mutation responsible for a genetic disease?

(A) Down syndrome
(B) Turner syndrome
(C) Thalassemia
(D) Sickle cell anaemia

93. Dark bands of the G banded human chromosomes represent

(A) euchromatin
(B) heterochromatin
(C) high copy number repeats
(D) low copy number repeats

94. People with Kleinfelter syndrome have 47 chromosomes, including three sex chromosomes (XXY). What leads to this abnormal chromosome number?

(A) Crossing over
(B) Nondisjunction
(C) Independent assortment
(D) Recombination

95. The correct sequence of spermatogenetic stages in a mature human testes is

(A) Spermatogonia-spermatocyte-spermatid-sperms
(B) Spermatid-spermatocyte-spermatogonia-sperms
(C) Spermatogonia-spermatid-spermatocyte-sperms
(D) Spermatocyte-spermatogonia-spermatid-sperms

96. In 2-D gel electrophoresis, the first dimension is based on the principle of

(A) Isoelectric focusing
(B) Urea-PAGE
(C) SDS PAGE
(D) High voltage electrophoresis

97. Mitochondria are involved in the following except

(A) ATP production
(B) Glycosylation
(C) Fatty acid biosynthesis
(D) TCA cycle

98. HeLa cell line is derived from which type of carcinoma?

(A) lung (B) colon
(C) cervical (D) brain

99. Anti-malarial function of quinine is mediated by

(A) blocking the formation of hemoglobin in the host
(B) blocking the formation of hemozoin in the parasite
(C) triggering synthesis of hemoglobin in the host
(D) triggering synthesis of hemozoin in the parasite

100. Which one of the following immunoglobulins is predominantly secreted in the milk?

(A) IgG (B) IgM
(C) IgA (D) IgE

101. The blastula stage in a mammalian embryo corresponds to

(A) Blastocoel (B) Blastocyst
(C) Blastopore (D) Blastoderm

102. The main product of glycolysis in skeletal muscles is

(A) lactate (B) pyruvate
(C) α-ketoglutarate (D) succinate

103. Which of the following is not a part of a neuron?

(A) synapse (B) axon
(C) Nissl bodies (D) dendrite

104. Which of the following is responsible for formation of Polytene chromosomes?

(A) Non-disjunction of chromatids during meiosis
(B) Recombination of sister chromatids
(C) Repeated replication without separation of sister chromatids
(D) Recombination between adjacent chromatids

105. The buffering capacity of a buffer will be maximum when the pH is

(A) lower to the pKa value
(B) higher to the pKa value
(C) very close to the pKa value
(D) pH of the buffer is independent of it's pKa value

106. Crossing over in diploid organism is responsible for

(A) dominance of genes
(B) segregation of alleles
(C) recombination of linked genes
(D) linkage between genes

107. By adding SDS (Sodiumdodecyl sulfate) during the electrophoresis of proteins, it is possible to

(A) determine a protein's isoelectric point
(B) determine the aminoacid composition of the protein
(C) preserve a protein's native structure and biological activity
(D) separate proteins exclusively on the basis of molecular weight

108. Dissolved solutes alter some physical (colligative) properties of the solvent water because they change the

(A) concentration of the water
(B) hydrogen bonding of the water
(C) ionic bonding of the water
(D) pH of the water

109. Chemical substance used in industry for cold clearing, adhesives and vapor degreasing is

(A) methyl chloroform
(B) carbon tetrachloride
(C) halons
(D) hydrocarbons

110. Etiolated plants are formed due to lack of

(A) light
(B) Hg
(C) Fe
(D) Mg

111. The overall efficiency of the distillation column is

(A) always more than the point efficiency
(B) the ratio of number of actual plates to ideal plates
(C) same as the Murphree efficiency
(D) the ratio of number of ideal plates to actual plates

112. Separation of two or more components of a liquid solution can not be achieved by

(A) absorption
(B) evaporation
(C) liquid extraction
(D) fractional crystallization

113. Toxic agents present in food which interfere with thyroxine synthesis leads to the development of

(A) toxic goiter
(B) cretinism
(C) simple goiter
(D) thyrotoxicosis

114. Iron bacteria can produce

(A) slime
(B) undesirable odors and tastes
(C) Both (A) and (B)
(D) extreme acidity

115. Which gas is used for artificial fruit ripening of green fruit?

(A) ethylene
(B) acetylene
(C) ethane
(D) methane

116. Commercial nitric acid is colored because it contains dissolved

(A) oxygen
(B) nitrous oxide
(C) nitrogen di oxide
(D) coloured impurities

117. Which of the following imparts deep blue color to glass?

(A) Cobalt oxide
(B) Cupric oxide
(C) Phosphorus
(D) Nickel oxide

118. The most common form of Sporotrichosis is

(A) skeletal
(B) mucosal
(C) lymphocutaneous
(D) visceral

119. Dermatophytes that do not attack nails are

(A) Keratinomyces
(B) Epidermophyton
(C) Trichophyton
(D) Microsporum

120. The adult or sexually mature stage of the parasite occurs in the

(A) first intermediate host
(B) final or definitive host
(C) second intermediate host
(D) insect vector

121. Nick translation is done by

(A) DNA polymerase I
(B) DNA polymerase II
(C) DNA polymerase III
(D) Kinase

122. The first vaccine developed from animal cell culture was

(A) Hepatitis B vaccine
(B) Influenza vaccine
(C) Small pox vaccine
(D) Polio vaccine

123. RFLP is used to

(A) construct high resolution linkage maps
(B) identify single gene diseases
(C) construct QTL maps
(D) All of the above

124. The most common site for implantation in ectopic pregnancy is

(A) internal site of the uterus
(B) mesentery
(C) ovary
(D) uterine tube

125. The following organs are derived from mesoderm except

(A) skeletal musculature
(B) musculature blood vessels
(C) cardiac musculature
(D) suprarenal medulla

126. Which of the following molecule acts as Lewis acid?

(A) $(CH_3)_2O$
(B) $(CH_3)_3P$
(C) $(CH_3)N$
(D) $(CH_3)_3B$

127. Identify the strong acid from among the following

(A) $CH{\equiv}C\text{-}COOH$
(B) $H–COOH$
(C) $CH_2{=}CHCOOH$
(D) $CH_3–CH_2COOH$

128. Salicylic acid on heating with soda lime gives

(A) Benzene
(B) Benzoic acid
(C) Phenol
(D) Toluene

129. Formation of equimolar mixture of sodium formate and methyl alcohol from formaldehyde in alkaline medium illustrates

(A) Disproportionation reaction
(B) Oxidation reaction
(C) Reduction reaction
(D) Condensation reaction

130. The isomeric alkane which releases the least amount of energy when burnt is

(A) n-Pentane
(B) isoheptane
(C) neoheptane
(D) 2,2,3-Dimethylbutane

131. Calcium benzoate on dry distillation gives

(A) Benzophenone
(B) Benzaldehyde
(C) Benzoic acid
(D) Benzene

132. The compound having a P-H single bond is

(A) H_3PO_4 (B) $H_4P_2O_7$
(C) H_3PO_3 (D) $(HPO_3)_n$

133. The dissociation energy of the O_2^+ is more than that of O_2 molecule. This is due to

(A) paramagnetic nature of O_2^+
(B) the positive charge carried by O_2^+
(C) the higher bond order in O_2^+
(D) stronger van der Waal's forces in O_2^+

134. The compound that will behave as an acid in sulphuric acid is

(A) HNO_3 (B) H_2O
(C) CH_3COOH (D) $HClO_4$

135. The number of bridging and non-bridging oxygen atoms present in P_4O_{10} are, respectively

(A) 10 and 0 (B) 0 and 10
(C) 6 and 4 (D) 4 and 6

136. A vascular bundle in an axis and its associated leaf traces is called as

(A) Sympodium (B) Apodium
(C) Polypodium (D) None of the above

137. The oldest group of algae with definite fossil remains in the form of stromatolites is

(A) cyanophyta (B) cryptophyta
(C) euglenophyta (D) glaucophyta

138. α-amylase is obtained from

(A) *Aspergillus oryzae* (B) *Trichoderma viride*
(C) *Mucor miehei* (D) *Aspergillus niger*

139. Which of the following statement is true about sieve tube Cells?

(A) Sieve tube cells are nucleated but devoid of mitochondria and ER
(B) Companion cells are non-nucleated and are regulated by nucleated sieve cell
(C) Sieve tube cells are present in all plants
(D) Companion cells are nucleated and regulates activity of nonnucleated sieve tube cell

140. Filiform apparatus is characteristic of

(A) egg
(B) synergids
(C) antipodal cells
(D) anther wall

141. Syngenesious anthers and epipetalous stamens are found in

(A) Liliaceae
(B) Malvaceae
(C) Solanaceae
(D) Compositae

142. In which stage of development does a zygote go through the structural and functional specialization of groups of cells?

(A) Growth
(B) Differentiation
(C) Morphogenesis
(D) Fertilization

143. Long-chain fatty acids are oxidized step-wise in one carbon units starting from the

(A) aliphatic end
(B) carboxyl end
(C) Both (A) and (B)
(D) None of the above

144. When the stamens are fused throughout their whole length, they are termed as

(A) Syngenesious
(B) Connivent
(C) Gynandrous
(D) Synandrous

145. 'Whip tail' in cauliflower is caused due to the deficiency of

(A) Boron
(B) Molydenum
(C) Copper
(D) Zinc

146. The kind of stomata generally found in the members of Solanaceae and Cruciferae are

(A) Anomocytic
(B) Anisocytic
(C) Paracytic
(D) Actinocytic

147. The soft wood in the plant kingdom comes from

(A) *Aeschynomene indica*
(B) *Ougenia dalbergioides*
(C) *Ochroma lagopus*
(D) *Erythrina suberosa*

148. The edible portion in mulberry comprises of

(A) Pericarp
(B) Meso- and endocarp
(C) Endocarp only
(D) Perianth

149. Stilt root is present in

(A) Banyan
(B) Rice
(C) Sugarcane
(D) Mango

150. *Spirogyra* reproduces asexually by

(A) Aplanospores
(B) Cysts
(C) Both (A) and (B)
(D) Hypnospores

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