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BIO-BOTANY

IMPORTANT 3 MARK DIAGRAM QUESTIONS

1. Draw floral diagram for female flower of Ricinus Communis
2. Draw floral diagram of Musa paradisiaca
3. Draw the structure of Parenchyma and label the parts
4. Draw diagram for lacunate collenchyma and label its parts
5. Draw diagram for angular collenchyma and label its parts
6. Draw diagram for Brachysclerids and label the parts
7. Draw any three types of secondary wall thickenings in tracheids
8. Draw and label the structure of xylem vessels
9. Draw the Diagram of bicollateral vascular bundle
10. Draw and label the parts of open vascular bundle
11. Draw and label the amphicribal vascular bundle
12. Draw the ground plan for T.S.of.dicot root & label its parts
13. Draw the ground plan for T.S.of.sunflower stem and label the parts
14. Draw the structure of chromosome and label its parts
15. Draw different types of chromosomes based on the shape and position of centromere
16. Draw and the label the parts acrocentric chromosome
17. Draw and label the structure of lamp brush chromosome
18. Draw t-RNA and label its parts.

IMPORTANT FIVE MARK QUESTIONS

19. Write any five salient features of ICBN.
20. Write the importance of Herbarium.
21. Give an account of Phylogenetic system of classification.
22. Discuss the outline of Bentham and Hooker 's classification.
23. Give an account of the economic importance of Solanaceae.
24. Write the economic importance of Malvaceae.
25. Write the economic importance of Euphorbiaceae.

26. Write the economic importance of Musaceae.
27. Bring out the Bentham and Hooker's classification.
28. Explain the types of meristems based on their positions with diagram
29. Write short notes on tracheids.
30. Write short notes on vessels.
31. Explain the structure of sieve elements.
32. With examples explain any 2 types of collenchymas with diagram.
33. Describe the four types of cells in Phloem tissues.
34. Describe the vascular system with diagram.
35. Draw and label the the parts of T.S.of. Monocot root
36. With examples, explain structure of concentric vascular bundles.
37. Differentiate between monocot & dicot root anatomically giving 5 points.
38. Describe the structure of vascular bundle in monocot stem.
39. Write short notes on the vascular bundles of the dicot stem.
40. Write any three differences between the vascular bundles of the dicot stem and monocot stem
41. Draw a neat sketch of anatomy of sunflower leaf (T.S. of. Dicot leaf) and label the parts
42. Write short notes on structure of chromosome.
43. Describe the special type of chromosomes.
44. Explain the types of chromosomes on the basis of shape and position of centromere with diagram.
45. Write short note on gene mutation.
46. Write about the significance of muatation.
47. Give an account of Mutagenic agents.
48. Explain translocational chromosomal aberration with diagram.
49. Explain allopolyploidy with an example.
50. Write any five significances of ploidy
51. Explain the experiment conducted by Fredrick Griffith in *Diplococcus pneumoniae*
52. Write a note on t-RNA with diagram
53. Write the difference between DNA and RNA.
54. Write the basic techniques involved in genetic engineering.
55. Explain the steps involved in the production of human insulin by a bacterial with diagram
56. How is DNA cut?
57. Describe with diagram the action of restriction endonuclease enzyme.
58. How are foreign genes introduced into plants.
59. Write about the electroporation and gene gun methods of introducing foreign gene inot plants.
60. Write the practical applications of genetic transformation.
61. Write the benefits from the release of genetically modified microorganisms into the environment.
62. Briefly mention the basic concepts involved in plant tissue culture.

63. Give an account of origin of tissue culture .
64. Write any five outcomes of application of plant tissue culture.
65. Explain the enzymatic method of isolation of protoplast.
66. Give an account of SCP.(or) What is Single cell protein? State uses of single cell protein.
67. Describe the structure of Chloroplast.
68. Explain the cyclic photophosphorylation.
69. Write the differences between cyclic and non-cyclic photophosphorylation.
70. Bring out any five significances of Photosynthesis.
71. Draw C_4 cycle without explanation.
72. Write short note on Ganong's light screen experiment.
73. What are the five differences between C_3 and C_4 pathways?
74. Explain the test tube and funnel experiment to demonstrate that oxygen is evolved during photosynthesis.
75. Explain Ganong's respiroscope experiment .
76. Write the significance of Penose Phosphate pathway.
77. Explain respiratory quotient.
78. Explain Khunne's fermentation experimentation with diagram.
79. Explain the experiment to measure the actual longitudinal growth of plant by lever auxanometer. (Or) Explain the experiment to measure growth in length of a plant.
80. Explain the different phases of growth with sigmoid curve.
81. State or Bring out the physiological effects of Auxin.
82. Write any five physiological effects of gibberellins.
83. Bring out the physiological effects of cytokinin.
84. List the physiological effects of ethylene.
85. Write a short note on vernalization.
86. Write any five aims of Plant breeding.
87. Write a note on plant introduction.
88. Write any five benefits of biofertilizers.
89. Give an account of Tikka disease of groundnut.
90. Write a short note on Bio-patent
91. Write about microbes in Medicine.
92. What is antibiotic? Write any two names of antibiotics. State their uses.
93. Write any five economic importance of cotton.
94. Bring about the economic importance of teak
95. Bring out the economic importance of groundnut.
96. Write a short note on citrus canker.

IMPORTANT 10 MARKS QUESTIONS- BIO-BOTANY

97. With the help of flow chart ,discuss Bentham & Hooker's classification of Plants.
98. a)Bring out the Merits of Bentham and Hooker's classification of plants. b).Bring out the significance of Herbarium
99. Describe *Hibiscus rosasinensis* in technical terms.Draw floral diagram and floral formula.
100. Decribe *Daura metal* in technical terms.
101. Describe *Ricinuscommunisin* botanical terms.
102. Describe *Musa Paradisiacain* technical terms.Draw its floral diagram and write the floral formula.
103. a) Bring out the characters of meristematic cells. b) Write the function of epidermal tissue system.
104. Write an account of sclerenchyma with diagram.
105. Write an essay on xylem tissues.
106. Describe the four types of cells in phloem tissues.
107. Describe the vascular system with diagram.
108. Describe the anatomy of monocot root with diagram
109. Describe the primary structure of a dicot root.
110. Describe the primary structure of a monocot stem
111. With the help of diagram, describe the anatomy of dicot stem.
112. Write the anatomical differences between the dicotyledonus stem and monocotyledonous stem.
113. Explain the anatomy of Dicot leaf.
114. Write an essay on DNA recombinant technology.
115. Write an essay on transgenic plants.
116. a) What is role of Bt toxin in crop protection against pest. b) Write any five uses of Plant tissue culture .
117. Explain the basic techniques of plant tissue culture.
118. What are the outcomes of application of plant tissue culture?
119. With the help of diagram, describe the process of protoplasmic fusion . (or) Explain as to how protoplasmic can bring about somatic hybridization in plants.
120. Give an account of single cell protein.
121. a.) Write about the use of genetically engineered bacterial strain by Ananda Mohan Chakrabarthy. b. write the benefits from release of genetically modified micro organism into the environment.
122. Describe the light rection of photosynthesis.(or) Explain cyclic and non-cyclic photophosphorylation.
123. Draw (or) Explain Calvin cyle (or) Write an account of dark reaction of photosynthesis.(Explanation or Flow Chart)
124. Describe Hatch and Slack pathway of carbon-di-oxide fixation in plants with flow chart. (or) Write an essay on C₄ pathway.
125. Draw C₄ cycle without explanation.
126. Write an essay on photorespiration. (or) C₂cyle (Explanation or Flow chart)
127. a. Write the significance of pentose phosphate pathway. b. Write short notes on insectivorous plants.
128. What is Glycolysis? Explain the steps involved in it. (or) Explain the reaction involved in glycolysis.(Flow chart or explanation)

- 129. Draw Kreb's cycle without explanation.(or) Explain Kreb's cycle. (Explanation or Flow chart)
- 130. Explain Pentose Phosphate pathway.
- 131. a) write any five physiological effects of Auxin b). Describe with examples any two types of heterotrophic nutrition in angiosperms.

***** ALL THE BEST *****