

1. Write any three merits and demerits of Bentham and Hooker's system of classification of plants.
2. What is the difference between cyclic and non-cyclic photophosphorylation?
3. A proper balance between insulin and glucagon production is necessary to maintain proper blood glucose level. Discuss.
4. Explain total parasite with an example.
5. Write any outcome of application of plant tissue culture.
6. What are meristems? Explain different types of meristems.
7. What are the function of corpus callosum and anterior commissars? If corpus callosum is damaged what will happen?
8. Write short note on the physiological effects of cytokine.
9. What treatment is made for coronary artery blockage? Explain.
10. Write the international bio-diversity conservation strategies.

11. Draw the structure of chromosome and label its parts.
12. Mention the binomials of any three medicinal plants of Solanaceae.
13. Write an account on glycolysis give explanation with flow chart.
14. In 2005, due to tsunami, most of the people died in our country. At the same time there was not much death in Nicobar Island. So, nature selected those tribes to survive. Explain how natural selection is the tool for evolution of new species?
15. Describe *Hibiscus rosa-sinensis* in technical terms.
  
16. What are single cell proteins? State uses of single cell proteins.
17. Write an essay on Xylem tissues.
18. Write an essay on protozoan disease caused to human being.
19. Explain the causes, symptoms and treatment of dental caries.
20. What are attenuated strains? State their uses.

21. Write an essay on Electrocardiogram.
22. List out the new concepts formed during post-Medelian period.
23. Distinguish between vaccines and antibiotics.
24. What is respiratory quotient? Work out the respiratory quotient of a carbohydrate and that of anaerobic respiration.
25. Describe with examples any two types of heterotrophic nutrition in angiosperms.
26. Describe Hatch and slack pathway of carbon dioxide fixation in plants with flowchart. Write an essay on C pathway.
27. Write in three differences between the palisade and sponge parenchyma.
28. In Krebs cycle isocitric acid is converted to a-ketoglutaric acid. The former is 6 carbon compounds and the latter is 5 carbon compounds. How does it take place?
29. Describe and label the parts of T.S of monocot root (a sector enlarged).
30. Hardy Weinberg equilibrium is applicable to large population only. Write its theoretical situations.

31. Explain in detail about instrument of Haemocytometer and its clinical significance.
32. Draw C<sub>4</sub> Cycle with explanation.
33. Explain Gagnon's respiroscope experiment.
34. Write a note on control and preventive measures of AIDS.
35. Draw the floral diagram and write the floral formula of amle flower of *Ricinus communis*.
36. Distinguish between photo respiration and dark respiration.
37. Explain the significance of Bioremediation recycling and reuse methods in waste management.
38. Describe the organ transplantation.
39. Give account of origin, distribution, characters and milk production of dairy breeds.