

Section A

- Write the answer of the following questions. [Each carries 2 Marks] [40]
1. Explain asexual reproductive structures.
 2. Explain why meiosis and gametogenesis are always interlinked ?
 3. Give importance of sexual reproduction in plants.
 4. Describe the method of artificial hybridisation.
 5. What is gametogenesis ? Explain.
 6. What is meant by parturition ? Describe changes occurring in uterus during this period.
 7. What is called reproductive health ? Explain in short.
 8. Give advantages - disadvantages of MTP.
 9. Discuss various aspects for infertility.
 10. State a comparison between the behaviour of chromosomes and Genes.
 11. Explain - Pleiotropy.
 12. The traits are inherited through generations. This fact is based on the principles proposed by Mendel in 1865. However Mendel did not discovered this principles of inheritance by studying human beings then how his principles are applied in case of humans.
 13. If the length of E. Coli DNA is 1.36 mm, calculate the number of base pairs in E. Coli.
 14. Describe the process transcription in Eukaryotes.
 15. Explain Miller's experiment with diagram.
 16. How Biological evolution has taken place ?
 17. Mention the factors affecting Health ?
 18. Why Mary Mallon is nicknamed as Typhoid Mary ?
 19. Explain Dairy industry and its management.
 20. Explain about poultry farm management.

Section B

- Write the answer of the following questions. [Each carries 3 Marks] [57]
21. Describe in detail about asexual reproduction in animals.
 22. What are meiocytes ?
 23. Describe internal structure of microsporangium.
 24. What is Apomixis ? Give its importance.
 25. Describe the structure of a sperm.
 26. Describe the process of implantation of embryo.
 27. Give information about medical termination of pregnancy.
 28. What are STIs ? Give information about diseases occurred by it ?
 29. Why do we study Genetics ? Give its historical background ?
 30. Describe incomplete dominance.
 31. Describe tRNA as adapter molecule.
 32. What is Human Genome Project ?
 33. Write short note on Lamarckism.
 34. Give difference Amongst Lamarckism, Darwinism and Mutation Theory.
 35. Explain divergent evolution in detail. What is the driving force behind it ?
 36. What are causative and symptoms of Pneumonia ?

37. Draw and describe the structure of antibody ?
38. Explain : plant breeding.
39. Explain single cell protein.

Section C

- Write the answer of the following questions. [Each carries 4 Marks] [44]
40. Explain Post Fertilization events.
 41. What is embryo ? Explain structure of monocot and dicot embryo.
 42. What is called menstrual cycle ? Describe its phases ?
 43. What is placenta ? Give information about hormones producing from the placenta.
 44. What are assisted reproductive technologies (ART) ? Give its importance and which methods come under it ?
 45. With the help of Punnett square describe monohybrid experiment.
 46. Write a explanatory note on DNA Fingerprinting
 47. Give an account of Hershey and Chase experiment. What did it conclusively prove? If both DNA and proteins contained phosphorus and sulphur do you think the result would have been the same ?
 48. Define an operon, giving an example, explain an Inducible operon.
 49. Mention the life cycle of Plasmodium ?
 50. Explain tissue culture technique in detail.