Sri Bhagawan Mahaveer Jain College

V.V. Puram

BIOLOGY

II PUC MOCK PAPER II

General instructions

- The question paper consists of four parts A,B, C and D
- All parts are compulsory
- Draw diagrams wherever necessary. Unlabeled diagrams do not attract any marks

PART- A

I. Answer the following question in one word or one sentence each **1×10=10**

1. Write the chemical compounds of primordial Earth?
2. Mention the names of any three genes of BT cotton.
3. Name the microorganism which produces butyric acid.
4. What are flocs?
5. Name the enzyme by which the HIV genome replicates in the host cell.
6. How do some species of insects and frogs avoid being detected easily by the predators?
7. Lactose is termed as inducer in the Operon. Give reason.
8. Give example for ex situ conservation.
9. Water hyacinth is called terror of Bengal. Why?
10. What is staminate flower?

PART -B

II. Answer any five of the following in few sentences **5×2=10**

11. Expand GIFT and ICSI
12. Name the technique involved in separation and isolation of DNA fragment which dye is used to stain gel to make the DNA visible under UV light.
13. With reference to transcription define
    a) Splicing
    b) Capping
14. Differentiate between chasmogamous and cleistogamous flower.
15. Mention any four functions of placenta.
16. Name the Pioneer species in primary succession and primary succession in water.
17. What are hot spots? Give an example.
18. Define codominance with an example.

PART -C

III. Answer any Five of the following **5×3=15**

19. Explain why we should conserve biodiversity.
20. What is endosperm? Differentiate between free nuclear and cellular endosperm with suitable examples.
21. Draw a neat labelled diagram of diagrammatic representation of Miller's experiment.
22. List out any three important goals of Human Genome Project.
23. Name the pathogen, vector and a symptom of filariasis.
24. Distinguish between homologous and analogous organs.
25. Draw a neat labelled diagram of an antibody molecule.
26. Write the chromosomal complement and symptoms of Turner's syndrome.

PART -D

Section- I

IV. Answer any four of the following **4×5=20**

27. With schematic representation explain spermatogenesis
28. Draw a neat labelled diagram of T.S. of Microsporangium.
29. Describe the regulation of Lac Operon in E coli.
30. Explain brood parasitism and pollination In Orchid Ophrys and its significance in the process of co-evolution.
31. Describe biogas plant with a neat labelled diagram.
32. Enumerate salient features of genetic code

SECTION- 2

V. Answer any three of the following **3×5=15**

33. Explain the steps involved in amplification of gene of interest using PCR.
34. What are biogeochemical cycles? Explain carbon cycle.
35. Explain the following
    a) Amoebiasis
    b) Trichophyton
    c) Colostrum
    d) MALT
    e) ELISA
36. Describe the process of translation of mRNA.
37. Draw a neat labelled diagram of human Male reproductive system.