



SRI BHAGAWAN MAHAVEER JAIN COLLEGE

Vishweshwarapuram, Bangalore.

Mock Question Paper 2 – January 2020

Course: II year PUC

Subject: Biology

Max. Marks: 70

Duration: 3.15hrs.

General Instructions:-

- 1. This question paper consists of four parts A, B, C & D**
- 2. Section I & Section II**
- 3. All parts are compulsory.**
- 4. Draw diagrams wherever necessary. Unlabeled diagram/illustration do not attract any marks.**

PART-A

- I. Answer the following in one word or one sentence each. 10x1=10**
1. Define totipotency?
 2. Give the biological name of the plant from which morphine is extracted.
 3. Name the diagnostic test for AIDS.
 4. Ovulation take place on the 14th day of menstrual cycle. Why?
 5. Which bioactive molecule is used as an immunosuppressive agent?
 6. Define genetic code.
 7. What is somatic cell gene therapy?
 8. What are alien species?
 9. Define law of dominance.
 10. The 2^o succession is considered as faster process than 1^o succession. Why?

PART-B

- II. Answer the following in 3-5 sentences each, wherever, applicable (any 5) 5x2=10**
11. Draw a neat labelled diagram of Biogas plant.
 12. List the hormones produced by placenta during pregnancy.
 13. Differentiate between geitonogamy and xenogamy.
 14. Write the asexual reproductive structure for (a) sponges (b) Hydra.
 15. What is Biolistics? Where is it generally used?
 16. What are the factors that are responsible for fluctuations of population growth?
 17. What is the karyotype of Turner's syndrome? Mention two symptoms of the syndrome.
 18. "Darwin's finches represent one of the best examples for adaptive radiation" comment.

PART-C

- III. Answer (any 5) the following in about 40-80 words each. 5x3=15**
19. Write a note on radioactive wastes?
 20. Explain the structure of matured pollen grain?
 21. Explain the types of outbreeding process employed to improve desirable qualities of animals.
 22. Mention (any three) characters of cancer cell.
 23. Expand GMO. Write any 4 uses of it.
 24. Draw a schematic representation of phosphorus cycle.
 25. Why Mendel's work was not recognized? Give any 3 reasons.
 26. State-Hardy-Weinberg law. Write the role of any 2 factors that affect Hardy Weinberg equilibrium.
 27. Write a note on downstream processing.

PART-D

(SECTION-I)

- IV. Answer (any four) of the following in about 200-250 words each. 4x5=20**
28. Draw a neat labeled diagram of sectional view of human female reproductive system.
 29. What is infertility? Explain how infertility is treated by assisted reproductive technologies.
 30. Give the scientific name of the organisms causing the following diseases.
(a) Common cold (b) Ringworm disease (c) Typhoid (d) Filariasis (e) Malaria.

31. What are the salient features of double helical structure of DNA?
32. What was the experiment of Stanley miller (1953) on origin of life?

PART-E
(SECTION-II)

V. Answer (any three) of the following in about 200-250 words each.

3x5=15

33. Explain the role of microbes in household products?
34. Sketch and label transcription unit?
35. What is global warming? Mention the causes & effects of the same.
36. Explain the steps involved in production of human insulin.
37. What are abiotic factors? Discuss the importance of any four factors.
