



# JAIN COLLEGE

463/465, 18th Main Road, SS Royal, 80 Feet Road, Rajarajeshwari Nagar,  
Bangalore - 560 098

Date:

**SUBJECT: BIOLOGY**

**II PUC**

**Mock paper 2**

**Timings Allowed: 3Hr 15Min.**

**Total Marks: 70**

## PART A

**I. Answer the following** **1X10=10**

1. What is implantation?
2. What is emasculation?
3. Write the restriction site of EcoRI enzyme
4. Define genetic drift
5. What is microinjection?
6. Name the causative agent of elephantiasis
7. Mention the role of methanobacterium in rumen of cattle
8. Name a new breed of sheep developed in Punjab by cross breeding technique
9. What is foetal ejection reflex?
10. From which plant morphine is extracted?

**II. Answer any five of the following** **2X5=10**

11. What are homogametes and heterogametes?
12. Write the difference between geitonogamy and xenogamy
13. Mention any two examples of evolution by anthropogenic action
14. Codon AUG has a dual function. Justify
15. What is innate immunity? Mention any two barriers of innate immunity
16. List any two methods of HIV transmission
17. Which are the important components of poultry farm management?
18. Define apiculture. List any two economic importance of it

## PART-C

**III. Answer any five of the following** **3X5=15**

19. How pollination is achieved in Vallisneria and sea grasses?
20. Name the six stages of human evolution in correct sequence
21. Draw a neat labeled diagram of clover leaf model of tRNA
22. What is heterothallic condition? Differentiate between staminate and pistillate flower
23. Mention any three characters of cancerous cells
24. State Hardy-Weinberg principle. Mention any two factors that affect Hardy-Weinberg equilibrium
25. Mention any three abiotic factors influencing life of organisms
26. What is biopiracy? Explain with reference to Basmati rice

**PART-D**

**IV. Answer any three of the following**

**5X3=15**

27. Write the diagrammatic representation of life cycle of HIV
28. Describe Fredrick Griffith experiment to show transformation in bacteria
29. Mention the four basic processes that fluctuate the density of population in given habitat with a diagram
30. Describe the process of translation of mRNA
31. Explain the important steps in decomposition process

**PART-E**

**V. Answer any four the following**

**5X4=20**

32. Mention any five microbes and beneficial products produced by them
33. Describe the process of DNA replication with the help of a diagram
34. Explain brood parasitism and sexual deceit as an interaction of species with an example each
35. Mention the effects of temperature in animals
36. Explain the process of plant tissue culture
37. Briefly describe the role of biological control of pests and diseases

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