



# JAIN COLLEGE

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

Date:

**SUBJECT: BIOLOGY**

**II PUC**

**Mock paper 1**

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

**Total Marks: 70**

## PART A

**I. Answer the following**

**1X10=10**

1. Define eutrophication
2. What is euchromatin?
3. Name the type of antibodies produced during allergy
4. What is down streaming process?
5. What are Eurythermal organisms?
6. State Allen's rule
7. Define Biomagnification
8. Mention a biodiversity hotspot in India
9. Write the name of toxic substance responsible for fever and chill in malaria
10. Name the chemical compound responsible for depletion of ozone layer

**II. Answer any five of the following**

**2X5=10**

11. Define polymerase chain reaction. Name the enzyme used in it
12. Mention the accessory ducts of male reproductive system
13. Write the significance of selectable markers in cloning vectors
14. List the hormone produced by the placenta during pregnancy
15. What is incomplete dominance? Give an example
16. Write the method to introduce alien DNA into host cell
17. Invasion of alien animal species eliminates the native animal species. Give two examples
18. Draw a neat labeled diagram of gel electrophoresis unit

## PART-C

**III. Answer any five of the following**

**3X5=15**

19. Describe haplodiploid sex determination system in honey bee
20. What is ecological succession? How hydrarch succession is different from xerarch succession?
21. Mention any three applications of DNA fingerprinting technique
22. (a) Differentiate between external and internal fertilization  
(b) Name the plant which produces flowers once in twelve years
23. Mention the types of carcinogens with an example for each
24. What is infertility? Give reasons for infertility in males
25. Write a note on Hemophilia
26. List out the functions of placenta

**PART-D**

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

**5X3=15**

27. Define multiple allelism. Give example. Mention the pattern of inheritance
28. (a) What are the features of an ideal contraceptive?  
(b) Mention the natural method of contraception
29. Draw a neat labeled diagram of male reproductive system
30. List the salient features of Human Genome Project
31. Explain Sewage treatment

**PART-E**

**V. Answer any four the following**

**5X4=20**

32. (a) The development of Bt cotton has reduced the use of insecticide. Justify  
(b) Write a note on gene therapy
33. (a) What are the effects of ozone depletion?  
(b) BOD is an indicator of water pollution. Comment
34. (a) Explain species area relationship graph  
(b) What are sacred grooves and landscapes? Give an example
35. Define the terms  
a. Algal bloom b. Cryopreservation c. Mortality d. Food web e. Gene flow
36. Give an account of causes of deforestation
37. Describe the process of synthesis of genetically engineered Insulin

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