



JAIN COLLEGE

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

Date: December 2017

SUBJECT: BIOLOGY

**II PUC
MOCK - I**

Timings Allowed: 3Hrs.

Total Marks: 70

GENERAL INSTRUCTIONS:

- **ALL PARTS ARE COMPULSORY.**
- **MENTION CORRECT MAIN AND QUESTION NUMBERS.**
- **DRAW DIAGRAMS WHEREVER NECESSARY. UNLABELLED DIAGRAMS DO NOT ATTRACT ANY MARKS.**

I. ANSWER THE FOLLOWING IN ONE WORD OR ONE SENTENCE EACH:

1X10=10

1. Define oestrus cycle.
2. Name the most commonly used natural vector for cloning genes in plants.
3. What is vegetative propagation?
4. Why eukaryotic genes are called 'split genes'?
5. In which food chain does dead organic matter occupy the base?
6. What are meiocytes?
7. Name the pathogen that causes amoebiasis.
8. What is detritus?
9. What is drug addiction?
10. Why is primitive earth's condition 'reducing'?

II. ANSWER THE FOLLOWING IN ABOUT 3-5 SENTENCES EACH:

5X2=10

11. Differentiate between co-dominance and incomplete dominance.
12. Define allergy. Give an example.
13. Differentiate between active and passive immunity.
14. AUG has a dual function. Justify
15. What is biomagnification? Give an example.
16. Define:
 - a. Gene flow
 - b. Genetic drift
17. Name the causative organism and the symptoms of Ascariasis.
18. Write a note on selection process in rDNA technology.

III. ANSWER THE FOLLOWING IN ABOUT 40-80 WORDS EACH:

5X3=15

19. What is test cross? Explain with respect to monohybrid cross.
20. Define contraceptive? Mention any two important quantities of a good contraceptive.
21. Expand GMO. Write any four uses of it.
22. Name the following:
 - a. The more man-like primate who walked like Gorilla
 - b. The primate who lived in east African Grassland
 - c. The primate who lived in east and central Asia between 1,00,000 to 40,000 years back
23. Write a note on *Cry* proteins. Give two examples of genetically modified Bt-crops.

24. Give reasons:
- AB blood group of man shows co-dominance.
 - Pyramid of energy is always upright.
 - t RNA is known as adapter molecule.
25. Briefly describe the process of double fertilisation.
26. What are ectoparasites? Give any four examples.

IV. ANSWER THE FOLLOWING IN ABOUT 200-250 WORDS EACH:

4X5=20

27. With a neat labelled diagram explain the structure of a typical anatropical ovule.
28. (a)What is poultry? Mention any two important components of poultry management [2]
(b) What is Biopiracy? Explain it with reference to Basmati Rice [3]
29. With the help of labelled sketch, explain the nucleosome model.
30. What are chromosomal disorders? Describe with examples.
31. Explain the biological control of pest and diseases.
32. What are the adaptations of wind pollinated flowers?

V. ANSWER THE FOLLOWING IN ABOUT 200- 250 WORDS EACH:

3X5=15

33. With a neat labelled diagram explain the structure of T.S. of a mature anther.
34. What is DNA fingerprinting? How does DNA fingerprinting help in solving forensic cases?
35. What is sewage? Describe Sewage treatment with the help of microorganisms.
36. (a) What is organic farming? [1]
(b) Mention the major sources of biofertilizers [2]
(c) What is biocontrol? Give any two examples [2]
37. Explain Bt-Cotton and write a note on the effects and significance of Bt- toxin.
