

University of Pune
Department of Management Sciences
MBA-BT Semester I
Semester Exam Nov 2011

102- Basics of Biotechnology and Bioinformatics

Question Paper: 60marks

Time: 3Hrs

Section 1 (Marks: 30)

1. Salient features of micro propagation technology? - **8 Marks**
2. Applications of Haploids as an agri-product? - **7 Marks**

ANSWER ANY THREE OF THE FOLLOWING: 3 X 5 Marks = 15 Marks

1. Importance of medicinal plants and their use in herbal drugs
2. Government initiatives to promote floriculture as an industry
3. Salient features of nutraceuticals and their importance
4. Explain how biodiesel provides energy security and pollution abatement?
5. Petrol blends, the modes and economics of generation of ethanol

Section 2 (Marks: 30)

Answer any three questions

All questions carry equal marks (=10)

Q3. What is bioinformatics? Why is Bioinformatics important? List 5 applications of Bioinformatics.

Q4. Describe in details, all steps involved in cloning of any gene using any suitable example.

Q5. What are Monoclonal Antibodies? Describe the process of Monoclonal Antibody preparation.

List two applications of Monoclonal Antibodies with examples.

Q6. What is the principle of the PCR reaction? How is a PCR done? Give two applications of PCR reaction and explain how it has helped in the progress of science.

Q7. Write short notes on **any two**

- a) Innate Immunity
- b) Cryopreservation
- c) FACS
- d) Advantages and Disadvantages of Animal Tissue Culture