

Savitribai Phule Pune University
Department of Management Sciences
MBA-BT Semester I
Semester End Exam Dec 2014
102- Basics of Biotechnology and Bioinformatics

Maximum Marks: 50

Time: 3Hrs

Answer Section 1 and 2 on separate sheets.

Section 1 (Marks: 20)

1. Explain the importance, production and implementation schedule of biofuels for pollution abatement?
- 6 Marks
2. Detail the advantages and disadvantages of India in floriculture industry? – 6 Marks
3. Answer any TWO of the following: 2 X 4 Marks = 8 Marks
 - a) Use of medicinal plants that lead to their near extinction and methods of their conservation
 - b) Advantages and disadvantages of in vitro propagation technology
 - c) Nutraceuticals and their importance in health care

Section 2 (Marks: 30)

Q1. Write short notes with examples (any four)

Marks: 20

- a) Application of Animal Tissue Culture techniques
- b) Application of FACS technique
- c) Structure of Immunoglobulin
- d) Salient features of the cell cycle of an mammalian cell
- e) Salient features of Innate immunity
- f) Primary Cell Culture technique and its limitations
- g) Cryopreservation and its applications

Q2. Explain the method for preparation of Monoclonal Antibodies.

Marks: 10

OR

Q2. Discuss the factors that contribute to immunogenicity of an antigen

OR

Q2. 'Proteins are key players in all living systems.' Discuss in detail, giving examples.