

MPY - 102 M. Pharmacy I & II Semester  
Examination, December 2012  
Biotechnology and Bioinformatics  
Time : Three Hours  
Maximum Marks: 70

Note : I. Attempt any five questions.

2. All questions carry equal marks.

3. Draw well labeled diagram wherever necessary.

1. a) With suitable diagram, illustrate the structure and functions of RNA.

b) Write a note on Post translational modification.

2. a) Explain the salient features of Gene cloning and highlight their pharmaceutical applications.

b) Give an account on blotting techniques.

3. a) Discuss various targets for gene therapy.

b) Explain different gene transfer methods.

4. a) Write basic concepts and applications of hybridoma technology.

b) Define vaccines and with suitable examples explain genetically improved vaccines.

5. a) Give an exhaustive account on cellular organization.

b) Describe cell signaling and discuss the communication between cells.

6. a) Discuss the molecular concepts of cancer and list out the major causes of cancers,

b) Define sampling and give the merits and demerits of sampling.

7.

7. a) Write the concepts of genetic and physical mapping. Give applications of bioinformatics in Pharmacy.

b) Give salient features of protein structure.

8. Write short notes on (any two):

a) Apoptosis.

b) Normal distribution.

c) DNA sequencing.