

Registration No. :

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Total number of printed pages – 2

B. Tech
PCBT 4401

Seventh Semester Back Examination – 2014
MEDICAL AND PHARMACEUTICAL BIOTECHNOLOGY

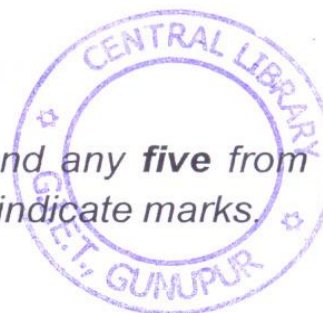
BRANCH : BIOTECH

QUESTION CODE : L 142

Full Marks – 70

Time – 3 Hours

*Answer Question No. 1 which is compulsory and any **five** from the rest.
The figures in the right-hand margin indicate marks.*



1. Answer the following questions : 2 × 10
- (a) What is biotransformation ?
 - (b) What are the different types of ELISA ?
 - (c) What do you understand by clinical trials ? What are the different stages of clinical trials ?
 - (d) What are semisynthetic antibiotics ? Give examples.
 - (e) Write any two applications of MAb with suitable examples.
 - (f) What are the different types of biosensors ?
 - (g) Differentiate between conventional vaccine and modern vaccine.
 - (h) What is microarray ?
 - (i) What are the different techniques used for identification of proteins ?
 - (j) What is interferon ? What are the different forms of interferons ?
2. Explain the different stages of drug designing in details with suitable examples.

10

P.T.O.

3. What do you understand by Hybridoma Technology ? How MAb are produced using this technology ? 10
4. (a) Write a short note on competitive ELISA. 5
(b) Write note on Insulin production by using r-DNA technology. 5
5. (a) What are the different techniques employed for separation of proteins ? 5
(b) Write a note on role of proteomics in disease diagnosis. 5
6. (a) What is toxicogenomics ? What are the different components of toxicogenomics ? Write any four application of toxicogenomics. 5
(b) Write a note on in vivo gene therapy. 5
7. (a) Write note on different enzymes used in diagnosis of different diseases. 5
(b) What is drug targeting ? Write the importance of drug targeting. 5
8. Write short notes on any **two** of the following : 5 × 2
- (a) Role of protein engineering in drug designing
- (b) Biosensors in clinical analysis
- (c) DNA based diagnosis
- (d) Microbial transformations of steroids.
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