

[Total No. of Questions - 18] [Total No. of Printed Pages - 2]
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B. Pharmacy 5th Semester Examination

Pharm. Biotechnology (NS)

BP-354

Max. Marks : 70

Time : 3 Hours

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any two questions from Section A, any eight questions from Section B. Section C is Compulsory and attempt all questions from Section C.

SECTION - A

1. Write an account regarding application of biotechnology in pharmacy with examples.
2. Write a detailed account of hybridoma technology and its application to monoclonal antibodies.
3. Explain the various techniques of immobilisation. (2×10=20)

SECTION - B

4. Explain briefly, the stages of DNA replication.
5. What are the problems associated with genetic engineering?
6. What is recombinant DNA technology?
7. Write in brief applications of monoclonal antibodies.
8. What is the difference between surface and submerged fermentation?
9. What is the difference between aerobic and anaerobic fermentation?

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10. Write a note on restriction endonuclease.
11. What are the reactions mediated by microorganisms?
12. How will you immobilise a plant cell?
13. What are the methods of bio-transformation of steroids by micro-organisms? (5×8=40)

SECTION - C

14. What are the applications of animal cell culturing?
15. What is fermentation?
16. What are cloning vectors?
17. Define transcription.
18. Define translation. (5×2=10)