

[Total No. of Questions - 18] [Total No. of Printed Pages - 2]
(2125)

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B. Pharmacy 5th Semester Examination
Pharmaceutical Biotechnology (NS)
BP-354

Time : 3 Hours

Max. Marks : 70

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 from Section B, and all questions from Section C.

SECTION - A

Attempt any two questions:

1. How is gene cloning done? Explain.
2. Write a note on biotransformation process as applied to steroids.
3. How is penicillin produced through biotechnology?
(2×10=20)

SECTION - B

Attempt any eight questions:

4. How can DNA replication be regulated?
5. What is the typical media used for steroids biotransformation?
6. How are stock cultures maintained?
7. Explain salient features of fermentors design.
8. What is gene cloning?

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9. What are monoclonal antibodies?
10. How is streptomycin produced? Explain through flow chart.
11. What is the application of immobilised enzyme to food industry?
12. How are bacterial cells immobilised?
13. Write a note on restriction endonuclease. (8×5=40)

SECTION - C

Attempt all five questions:

14. Define monoclonal antibody engineering.
15. What are the microorganisms that are used in fermentation?
16. What is biotransformation?
17. What are the factors affecting immobilised enzyme kinetics?
18. What are the limitations of older techniques of microbiology?
(5×2=10)