

QP Code: 625006

Reg. No.....

**Sixth Semester B. Pharm Degree Supplementary Examinations
January 2022**

Pharmaceutical Biotechnology

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Define rDNA technology. Discuss in detail about the steps of rDNA technology.
2. Write in detail on mechanisms and significance of Hypersensitivity reactions.

Short Notes

(7x5=35)

3. Production of protease.
4. Explain the collection, processing and storage of whole human blood.
5. Explain about ELISA technique and its applications.
6. With the help of neat labelled diagram explain about structure of immunoglobulin and its classification.
7. Explain the general method of preparation of any one bacterial vaccine with examples.
8. Write in detail about gene transfer mechanism by transformation.
9. Differentiate between humoral and cell mediated immunity with examples.

Answer Briefly

(10x2=20)

10. Restriction endonucleases
11. Name any two commonly used microorganisms used for production of vitamin B₁₂ by fermentation.
12. Southern blotting
13. Explain any one toxoid production with example.
14. Define enzyme immobilization
15. Plasma substitutes.
16. Immune suppression
17. Transposons
18. Define microbial biotransformation.
19. Biosensors
