

QP Code: 625006

Reg. No.....

**Sixth Semester B. Pharm Degree Regular/Supplementary
Examinations February 2025
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. Explain the production of interferon by rDNA technology. Discuss the types of mutations
2. Define Hybridoma technology. Explain the production and applications of monoclonal antibodies

Short Notes

(7x5=35)

3. Explain the applications of biosensors
4. Mention the industrial applications of proteases
5. What are vaccines. Classify vaccines with suitable examples of each type
6. Classify and explain ELISA methods
7. Write a note on Transduction
8. Discuss the design features, merits and demerits of continuous fermenters
9. Enlist the properties of an ideal plasma substitute and write a note on dextran

Answer Briefly

(10x2=20)

10. Briefly explain type I hypersensitivity reactions
11. Steps involved in PCR (Polymerase Chain Reaction)
12. Any two applications of biotechnology in pharmaceutical sciences
13. Name the organism for the production of small pox vaccine and BCG vaccine
14. Protein engineering
15. Penicillin production
16. Adaptive immune response
17. Examples of anticoagulants used for collection of whole human blood
18. Microbial transformation of steroids
19. Citric acid production
