

Supply

Rajiv Gandhi University of Health Sciences, Karnataka
Sixth Semester B. Pharm Degree Examination – 12-May-2025

Time: Three Hours

Max. Marks: 75

PHARMACEUTICAL BIOTECHNOLOGY

Q.P. CODE: 5027

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

All the Questions are compulsory.

LONG ESSAYS

2 x 10 = 20 Marks

1. Explain the different methods of immobilization of enzyme and give its applications

OR

Explain in detail about the production of citric acid and griseofulvin

2. Write the design of an industrial fermenter with a neat labelled diagram

SHORT ESSAYS

7 x 5 = 35 Marks

3. Describe the production and uses of lipase

OR

Add a note of western blotting technique and its significance

4. Explain the production of hepatitis B vaccine by rDNA technology

OR

Write a note on storage and stability of vaccines

5. What are cloning vectors? Explain the features of pBR322
6. Write the role of lymphocytes in immunity
7. List out different blood products and their applications
8. Write a note on Immune stimulation and Immune suppression
9. What is biotransformation? List out the applications of microbial biotransformation

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write any four methods of immobilization techniques
11. What is PCR. Give two applications
12. Name any two blood products with applications
13. Name two methods of preparation of viral vaccine
14. Write the difference between vaccines and sera
15. Write the importance of transposons
16. Name four mutagenic agents
17. Write any two enzymes and their substrates employed in ELISA
18. List out any four applications of enzymes in medicine
19. How is fermentation equipment sterilized?
