

QP Code: 625006

Reg. No.....

**Sixth Semester B. Pharm Degree Regular Examinations May 2021  
Pharmaceutical Biotechnology**

**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 Vaccine. Explain the general method of preparation of any one viral vaccine with suitable examples.
2. Define fermentation. Explain about the production of penicillin by bioprocess technique.

**Short Notes**

**(7x5=35)**

3. Explain the basic principle of genetic engineering.
4. Describe the steps involved in PCR (Polymerase Chain Reaction) technique.
5. Define MHC. (Major Histocompatibility Complex) Explain its structure and functions.
6. Outline the general storage and stability conditions for official vaccines. Give the conditions for two official vaccines.
7. Biosensors and its different types.
8. Operation of aerobic fermentation.
9. Discuss any five microbial biotransformation reaction with examples.

**Answer Briefly**

**(10x2=20)**

10. Define Immunoglobulin.
11. Types of immunity.
12. Plasmid.
13. Use of western blot technique.
14. Applications of immobilized enzymes.
15. Use of restriction endonuclease.
16. Define mutation. Give examples of agents causing mutation.
17. Give examples of two immuno suppressants.
18. Name the microbes used for the production of protease enzyme.
19. Examples of plasma substitutes.

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