QP Code: 625006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
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 Hybridoma technology. Explain the production and applications of monoclonal antibodies.
2. Write about fermentative production and purification of penicillin.

Short Notes **(7x5=35)**

3. Explain the different types of Immunoglobulin.
4. Production of interferon by rDNA technology.
5. Define Biosensors. Discuss different types of biosensors in pharmaceutical industries.
6. Classify toxin. Discuss the preparation of Diphtheria toxoid
7. Write in detail about gene transfer mechanism by conjugation.
8. Discuss briefly the different methods of enzyme immobilizations.
9. Discuss the types of mutations.

Answer Briefly **(10x2=20)**

10. Define Immunostimulants.
11. Briefly explain type I hypersensitivity reactions.
12. Any two applications of biotechnology in pharmaceutical sciences.
13. Steps involved in PCR (Polymerase Chain Reaction).
14. Spargers and types.
15. Define transduction.
16. Explain innate immunity
17. Types of ELISA.
18. Name the organism for the production of Small pox vaccine and BCG Vaccine.
19. Examples of anticoagulants used for collection of whole human blood.

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