

Sl.No: M21598

Course Code: 2910411

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**B.PHARM. DEGREE EXAMINATION – August 2019**  
**Fourth Year**

**PHARMACEUTICAL BIOTECHNOLOGY**

Time : Three hours

Maximum: 70 marks

I. Write essays on any **TWO** questions: **(2 x 15 = 30)**

1. Define disinfection. Explain the various factors affecting their action with its merits and demerits.
2. Discuss in detail various techniques for production of monoclonal antibodies and its application in pharmaceutical research.
3. Give an account on fermentation principles. Add a note on isolation and screening of industrial important microbes.

II. Write short essays on any **SIX** questions: **(6 x 5 = 30)**

4. Test for sterility.
5. Cultivation of bacteria.
6. Conjugation.
7. Redal walker test
8. Structure of DNA
9. Penicillin
10. Applications of enzyme biotechnology.
11. Typhoid

III. Write short notes on any **FIVE** questions: **(5 x 2 = 10)**

12. Interferon
13. Elisa
14. Single cell protein
15. Replication
16. Anabolism
17. Protease.

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