

Third B.Pharm (Ayurveda) Degree Examinations October 2018
Pharmaceutical Microbiology & Biotechnology

Time: 3 Hours

Total Marks: 100

- Answer all questions.
- Write **SECTION A** and **SECTION B** in separate Answer books (32 Pages). Do not mix up questions from Section A and Section B.

QP CODE: 304008**Section A- Microbiology****Marks: 50****Essay:****(10)**

1. Explain different types of microbial growth media with their significances

Short notes:**(5x5=25)**

2. Explain heat sterilization method.
3. The general methods of microbiological assay of vitamins.
4. Explain adaptive immunity.
5. Enumerate various differences between gram +ve and gram -ve bacteria.
6. Classification of viruses

Answer briefly:**(5x3=15)**

7. The principle of negative staining method.
8. What is the importance of: Capsule, Pilli, Plasmid
9. Write suitable methods of sterilization for the following: • Nutrient agar medium
• thermo labile antibiotic solution • water for injection
10. Name any three gram +ve bacteria.
11. Mention any three beneficial uses of fungi

QP CODE: 308008**Section B - Biotechnology****Marks: 50****Essay:****(10)**

1. Discuss on hypersensitivity

Short notes:**(5x5=25)**

2. Explain the process and significance of conjugation.
3. The fermentation method for vitamin B₁₂ production.
4. Explain effects of immobilization on kinetics and properties of enzyme.
5. Different classes of antibodies.
6. The hydroxylation and dehydrogenation processes of microbial transformations

Answer briefly:**(5x3=15)**

7. Explain the role of mucous membrane in immunity
8. Name any three viral vaccines.
9. Diagrammatically describe the process of phagocytosis.
10. What is ABO incompatibility
11. What is fluidized bed fermenter
