

Third Year B.Pharm(Ayurveda) Degree Supplementary Examinations, April 2016

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:

(1x10=10)

1. Discuss the general characteristics of virus. Explain viral multiplication and viral enumeration.

Short notes:

(5x5=25)

2. Explain the structure of fungus.
3. Validation of sterilization procedures.
4. Compare the merits and demerits of various techniques for the isolation of micro organisms in pure culture.
5. Methods of reproduction of bacteria.
6. Determination of rideal walker coefficient of a disinfectant and its limitations.

Answer briefly:

(5x3=15)

7. Ziehl neelson staining.
8. Differentiate between antotrophs and heterotrophs.
9. Phase contrast microscopy.
10. Microbiological assay of cyanocobalamine.
11. Koch's postulates.

QP CODE:308008

Section B - Biotechnology

Marks:50

Essay:

(1x10=10)

1. Explain cellular and humoral immunity. Add a note on antibodies and its structure.

Short notes:

(5x5=25)

2. BCG vaccine.
3. Design of any two fermentors.
4. Explain antibiotics and preparation of tetracyclines.
5. Conjugation.
6. Hypersensitivity reactions with its classification.

Answer briefly:

(5x3=15)

7. Viral vaccines with preparation of any one vaccine.
8. Hyalureidase.
9. Types of reactions mediated by microorganism.
10. Streptokinase with its use.
11. Screening of soil for organism producing antibiotics.
