

Rajiv Gandhi University of Health Sciences, Karnataka
Third Semester B. Pharm Degree Examination – 15-Nov-2021

Time: Three Hours

Max. Marks: 75 Marks

PHARMACEUTICAL MICROBIOLOGY

Q.P. CODE: 5011

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
All the questions are compulsory

LONG ESSAYS

2 x 10 = 20 Marks

1. Differentiate between Gram positive and Gram-negative cell wall. Write the principle and procedure of Gram's staining technique.

OR

Explain principle involved in sterilization by filtration. Add a note on its merits and demerits.

2. Enlist various methods of evaluation of bacteriostatic and bactericidal disinfectant. Explain any one method of bacteriostatic disinfectant.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Differentiate between prokaryotes and eukaryotes

OR

Enlist methods for isolation of pure culture.

4. Explain the factors affecting gaseous sterilization.

OR

Write the significance of various reagents used in Gram staining and Acid-fast staining.

5. Write about classification of virus.

6. Classify clean area according to British standard and US standards.

7. Write briefly on different methods used for microbiological assay of antibiotics.

8. Explain the evaluation of microbial stability of formulations.

9. Discuss about advantages and disadvantages of cell culture technology.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write contributions of Alexander Fleming.
11. List out the different phases of growth of bacteria.
12. Define sterilization.
13. Write structure of typical virion.
14. Give two examples for alcoholic disinfectants. Mention its mechanism of action.
15. Write the principle of sterility testing.
16. Outline interpretation sterility testing results
17. Draw a flow diagram of an aseptic area.
18. What are the visible changes of microbial contaminations in pharmaceuticals?
19. Mention any four major requirements for cell culture laboratory.