

Rajiv Gandhi University of Health Sciences, Karnataka
Third Semester B. Pharm Degree Examination – 02-Jun-2023

Time: Three Hours

Max. Marks: 75

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. Describe bacterial growth curve. Add a note on physical factors affecting growth of bacteria.

OR

Explain the source, mechanism of sterilization, merit, demerits and applications of sterilization using gamma radiations.

2. Classify disinfectants with examples. Explain the methods used for evaluation of bacteriostatic agents

SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain the principle of Electron microscopy.

OR

Describe any two methods used for determination of viable count.

4. Explain the mechanism of moist heat sterilization.

OR

Discuss the principle and procedure of Gram staining.

5. Classify viruses with examples.
6. Explain the construction and design of aseptic room in pharmaceutical manufacturing.
7. Explain the principle involved in microbiological assay of streptomycin.
8. Describe the cultivation of anaerobic bacteria.
9. Explain the general procedure for cell culture.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write four pharmaceutical uses of microorganisms.
11. List the properties of an ideal disinfectant.
12. Define sterilization.
13. Why are viruses described as obligate parasites?
14. Differentiate between prokaryotes and eukaryotes.
15. What is direct inoculation method?
16. Write the significance of positive control in sterility testing.
17. Define clean room and list the classes.
18. List the sources of microbial contamination in pharmaceuticals.
19. Name the important nutrients present in culture media.
