

# Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 07-Nov-2023

Supply

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. Classify bacteria on the basis of nutritional requirements and add a note on raw materials used for preparation of culture media.

OR

Explain the principle, procedure, applications and demerits of moist heat sterilization.

2. Classify disinfectants. Write the mechanism of action and uses of phenolic disinfectants.

### SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain the principle of electron microscopy.

OR

Differentiate between Gram positive and Gram-negative organisms.

4. Explain the mechanism of sterilization by filtration.

OR

Explain IMViC tests used for identification of bacteria.

5. Describe the methods of reproduction in fungi.
6. Explain the construction and design of aseptic room.
7. Explain the principle involved in microbiological assay of antibiotics.
8. Explain different factors affecting microbial spoilage of pharmaceuticals.
9. Define cell culture. Give the merits, demerits and applications of cell culture.

### SHORT ANSWERS

10 x 2 = 20 Marks

10. List the contributions of Robert Koch.
11. Differentiate between fungi and bacteria
12. Mention the demerits of ethylene oxide sterilization.
13. Explain how operators can be a source of contamination in aseptic area.
14. List the factors affecting disinfectant activity.
15. What is membrane filtration method?
16. Name the media used for sterility testing.
17. Name biological sterilization indicators
18. List out sources of microbial contamination in pharmaceuticals.
19. What are cell cultures?

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