

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Third Semester B. Pharm Degree Examination – 07-Nov-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. 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. **Write a note on anaerobic culture techniques.**

**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. **List out different methods for sterilization of air.**
14. List the factors affecting disinfectant activity.
15. **List out the different phases of bacterial growth curve.**
16. Name the media used for sterility testing.
17. Name biological sterilization indicators
18. **What is selective medium and give one example ?**
19. **What are the functions of bacterial capsule ?**

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