

# Rajiv Gandhi University of Health Sciences, Karnataka

**Third Semester B. Pharm Degree Examination – 03-Nov-2025**

**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**

1. Explain different factors affecting disinfection

**OR**

Write about importance of microbial preservation technique. Write procedure, merit and demerit of any four preservation techniques

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

**2 x 10 = 20 Marks**

### **SHORT ESSAYS**

**7 x 5 = 35 Marks**

3. Differentiate between prokaryotes and eukaryotes

**OR**

Explain the different sources and types of microbial contamination of pharmaceuticals

4. Write a note on cultivation of anaerobic bacteria

**OR**

Explain principle and procedure involved in microbiological assay of vitamin B12

5. Define cell culture, give the merits, demerits and application of cell culture

6. Write about cultivation of virus

7. Describe the construction and working of laminar air flow

8. Write the principle and procedure involved in gram staining

9. Mention indicators used for various sterilization methods

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

10. Mention the media used in cell culture

11. What are Rodac plates?

12. Write the principle of sterility testing

13. Write the advantages of autoclaving over hot air sterilization

14. Differentiate between Flagella and Fimbriae

15. What is mycelium?

16. What are cell lines?

17. Mention any four applications of dry heat sterilization

18. Mention arrangement based classification of cocci

19. Define antimicrobial agents. Give two examples

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