

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Third Semester B. Pharm Degree Examination – 07-Dec-2020**

**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

**LONG ESSAYS (Answer any Two)**

**2 x 10 = 20 Marks**

1. Define and classify culture media. Mention salient feature of each media along with an example.
2. Explain the principle, procedure, applications and demerits of sterilization using autoclave.
3. Classify disinfectants. Write the mechanism of action and uses of phenolic disinfectants.

**SHORT ESSAYS (Answer any Seven)**

**7 x 5 = 35 Marks**

4. Outline working principle of TEM and SEM.
5. Differentiate between gram positive and Gram negative cell wall.
6. Mention indicators used for various sterilization methods.
7. Explain MR-VP tests used for identification of bacteria.
8. Describe the steps involved in replication of virus.
9. Describe the construction and working of laminar air flow.
10. Write briefly on different methods used for microbiological assay of antibiotics.
11. Explain the different sources and types of microbial contamination of pharmaceuticals.
12. Differentiate between primary and established cell culture.

**SHORT ANSWERS (Answer All)**

**10 x 2 = 20 Marks**

13. State Koch's postulates.
14. What is lag phase of bacterial growth?
15. Classify physical method of sterilization.
16. Mention pharmaceutical uses of fungi.
17. Mention the factors affecting disinfectant activity.
18. Write the significance of positive control in sterility testing.
19. What is direct inoculation method of sterility testing?
20. What are Rodac plates?
21. What are visible changes of microbial contaminations in pharmaceuticals?
22. Mention any four major requirements for cell culture laboratory.

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