

# Rajiv Gandhi University of Health Sciences, Karnataka

## Third Semester B. Pharm Degree Examination – JAN 2019

**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. What is pure culture? Enlist methods for isolation of pure culture. Describe any two industrially important techniques of preserving bacteria. (2+3+5)
2. Explain the principle, procedure and applications of sterilization using hot air oven. (3+5+2)
3. Explain different factors affecting disinfection.

**SHORT ESSAYS (Answer any Seven)****7 x 5 = 35 Marks**

4. Outline working of TEM and SEM
5. Define and classify culture media with examples.
6. Explain the principle involved in autoclaving.
7. Write principle and procedure of acid-fast staining.
8. Write a note on cultivation of virus.
9. What are the main sources of contamination of an aseptic room? How will you prevent it?
10. Explain principles involved in microbiological assay of vitamin B12.
11. Explain the different sources and types of microbial contamination of pharmaceuticals.
12. Write briefly the general procedure for cell culture.

**SHORT ANSWERS (Answer All)****10 x 2 = 20 Marks**

13. Write contributions of Edward Jenner.
14. Differentiate between flagella and fimbriae
15. Write bio-indicators for thermal sterilization.
16. Mention pharmaceutical uses of fungi.
17. Define disinfection.
18. Write the significance of positive control in sterility testing.
19. Write the principle of membrane filtration method of sterility testing.
20. What is Grade 100?
21. List out different types of spoilage in pharmaceuticals.
22. What is primary cell culture?

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