# Rajiv Gandhi University of Health Sciences, Karnataka Third Semester B. Pharm Degree Examination – JUNE-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)**

 $2 \times 10 = 20 \text{ Marks}$ 

1. What is pure culture? Write in detail about isolation of pure culture.

(2+8)

- 2. Explain the principle, procedure and applications of any one thermal method of sterilization. (3+4+3)
- 3. Explain different methods for evaluation of bacteriostatic disinfectant.

#### **SHORT ESSAYS (Answer any Seven)**

 $7 \times 5 = 35 Marks$ 

- 4. Give the principle and main characteristic of phase contrast microscopy.
- 5. Describe bacterial growth curve.
- 6. Write the procedure, merits and demerits of membrane filtration.
- 7. Write principle and procedure of Gram staining.
- 8. Describe steps involved in replication 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 streptomycin.
- 11. How will you detect microbial contamination in pharmaceuticals?
- 12. Write briefly on general requirements of cell culture laboratory.

### **SHORT ANSWERS (Answer All)**

 $10 \times 2 = 20 \text{ Marks}$ 

- 13. Write contributions of Robert Koch.
- 14. What is enriched media? Give example.
- 15. Write applications of uv radiations.
- 16. What is mycelium?
- 17. Write the ideal properties of disinfectant.
- 18. What is direct inoculation method of sterility testing?
- 19. What is sterility testing?
- 20. How will you validate HEPA filter?
- 21. List out different types of microbial contaminants in pharmaceuticals.
- 22. What is secondary cell culture?

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