

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Pharm Degree Examination – NOVEMBER 2015

Time: Three Hours

Max. Marks: 70 Marks

PHARMACEUTICAL MICROBIOLOGY & BIOTECHNOLOGY

(Revised Scheme 3)

Q.P. CODE: 2607

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. Explain in detail the production of human insulin by recombinant DNA technology.
2. Classify various physical methods of sterilization. Explain the principle involved, equipment, method and application of sterilization by radiation.
3. Discuss in general the various types of antigen and antibody reactions. Add a note on their applications.

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. What are frames shift mutations? What causes them? Discuss the mechanism.
5. How are viruses cultivated? Describe a method.
6. Explain the principle involved and procedure for gram's staining.
7. Discuss briefly the measure of the efficiency of a heat sterilization process.
8. Write the factors influencing disinfectant activity.
9. Sterilization of small volume aqueous solutions
10. General method for the production and standardization of diphtheria endotoxins
11. Hypersensitivity reactions

SHORT ANSWERS

10 x 2 = 20 Marks

12. Differential media
13. Classify bacteria based on nutritional requirements.
14. Widal test
15. Hybridoma culture
16. Of what diagnostic value the gram's staining reaction is? Give two examples each for gram+ve and gram-ve organisms.
17. Define the terms antiseptics and disinfectants.
18. Plasmid
19. Phenotypic and genotypic changes in bacteria
20. Bacteriophages

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21. Preservatives

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