Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Pharm Degree Examination – JAN-2019

Time: Three Hours **Max. Marks: 80 Marks**

PHARMACEUTICAL MICROBIOLOGY & BIOTECHNOLOGY
(Revised Scheme - 2)
Q.P. CODE: 1957

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 pure culture. What are the different methods used to isolate bacteria into pure culture? Write the procedure for any one method.
2. Classify various physical methods of sterilization giving examples. Write the principle involved and the procedure for sterilization by radiation.
3. Discuss briefly the application of recombinant DNA technique in the production of human insulin.

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Extrachromosomal genetic elements.
5. Risks involved in the use of r-DNA products.
6. Production of monoclonal antibody by hybridoma technique.
7. Antigen-Antibody reactions.
8. Mode of Transmissions and treatment of cholera.
9. Classify bacteria based on nutritional and gases requirements giving examples.
10. Write the principle involved and the procedure for gram's staining.
11. Tyndallization.
12. How do you sterilize oily solutions & suspensions?
13. Describe any one method for assessment of bacteriostatic activity.

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Differential media.
15. Structure of antibody.
16. Distinguish disinfectants and antiseptic agents.
17. Phenol co-efficient test.
18. Reproduction in bacteria.
19. Sterilization indicators.
20. Mechanism of action of phenol and alcohol as disinfecting agents.
21. Bacteriophase structure.
22. Explain the terms 'Bactericide' and 'Beacteriostat'.
23. What diagnostic value the gram's staining reaction is? Give examples of gram positive and gram negative organisms.

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