

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - MAY-2019

[Time: 3 Hours]

[Max. Marks: 100]

MICROBIOLOGY

PAPER – I

Q.P. CODE: 7355

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer all the Questions

10 X 10 = 100 Marks

1. Classify and describe the principles of the Polymerase Chain Reaction and critically evaluate their value in diagnostic microbiology. Add a note on RT-PCR.
2. Outline the general properties of cytokines. Enumerate the three cytokines which play a major role in the acute phase response and describe how they act to combat infection.
3. Role played by a microbiologist in occupational exposure of blood and body fluids in a health care setting.
4. Describe the criteria for assessing and the control measures you would adopt to ensure the quality of culture media in a diagnostic laboratory.
5. List the mechanisms through which a change may occur in the genome of a bacterial cell. Describe any one of these mechanisms. Explain how these mechanisms lead to the spread of antimicrobial resistance.
6. What is an antibiotic policy? Discuss stating advantages and disadvantages and how you would develop an antibiotic policy for use in a medical college.
7. Cleaning and sterilization procedure for glassware used in microbiology.
8. Discuss the role of B cells in immune response.
9. Use of monoclonal antibodies in diagnostic microbiology.
10. Spaulding classification for sterilisation.

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