

QP Code: 213019

Reg. No.....

**Second Year B.Sc. Medical Microbiology Supplementary Examinations
September 2025**

Paper VIII – Methodology and Instrumentation

(2016 Scheme)

Time: 3 hrs

Max Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw Diagrams wherever necessary*

Long Essays

(2x15=30)

1. Discuss in detail about the principle, working and applications of Phase contrast microscope.
2. Discuss in detail about the principle, methodology and applications of Ion-exchange chromatography.

Short Essays

(2x10=20)

3. Density gradient centrifugation
4. Iso-electric focusing

Short Answers

(6x5=30)

5. Fluorescent microscope
6. Autoclave
7. Differential centrifugation
8. pH meter
9. Incubator
10. Competitive ELISA

Comment on

(10x2=20)

11. Specificity and sensitivity
12. Gaspak system
13. Magnification of a microscope
14. Freeze etching
15. Two dimensional chromatography
16. Factors affecting electrophoretic mobility
17. Turbidometry
18. Fluorimeter
19. Radio-labelled probes
20. Tracking dyes
