

**QP Code: 213019**

**Reg. No.....**

**Second Year B.Sc Medical Microbiology Degree Supplementary  
Examinations August 2024**

**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. What is chromatography. Describe the principle and working of HPLC
2. What are biological safety cabinets. Describe the working and uses of a biological safety cabinet

**Short Essays**

**(2x10=20)**

3. Explain the principle of DNA electrophoresis and its role in molecular biology
4. Describe the principle, technique and application of Radio Immuno Assay.

**Short Answers**

**(6x5=30)**

5. Autoclave.
6. Anaerobic cultivation apparatus
7. PAGE
8. Density gradient centrifuge
9. Hot air oven
10. pH meter

**Comment on**

**(10x2=20)**

11. Shadow casting
12. Sandwich ELISA
13. Beer-Lamberts law
14. Flame photometer
15. Western blotting
16. Subcellular fractionation
17. Tracking dye
18. Partition coefficient
19. HEPA filters
20. Turbidometry.

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