

**QP Code:104109**

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

**PG Degree Supplementary Examinations in Microbiology (MD)  
July 2025**

**Paper IV - Applied Microbiology and Recent Advances in Microbiology**

**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 table/diagrams/flow charts wherever necessary*

**Essay:**

**(20)**

1. Define and classify health care Associated Infection. Discuss routine measures that are adapted to reduce Surgical Site Infection in the hospital. Add a note on outbreak management.

**Short essays:**

**(8x10=80)**

2. Discuss the methods of detection of carbapenemases in the laboratory. Add a note on the antibiotics that can be used to treat the infections produced by carbapenemase producing bacteria.
3. Role of Bio markers in diagnosis of fungal infection.
4. Management of bio medical waste in microbiology laboratory.
5. Vaccines in immunocompromised host.
6. Write SOP in general for sample receiving in the microbiology laboratory.
7. Biosecurity in microbiology laboratory.
8. Expand CRISPR and discuss its role in infectious diseases.
9. Discuss core elements of Antibiotic policy.

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