

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
WARANGAL, TELANGANA– 506 002**

M.D/ M.S DEGREE EXAMINATIONS: OCTOBER 2025

**MICROBIOLOGY
PAPER-IV**

Time: 3 Hours

Max Marks: 100

Note: Answer all questions

Give Diagrammatic representation wherever necessary

Write an essay on the following:

10 X 10 = 100

1. Classify Antigen Antibody reactions. Discuss the principle and application of Chemiluminescence assay with examples.
2. Discuss the importance of calibration of equipment in the Diagnostic Microbiology laboratory with suitable examples.
3. Discuss the role of a Microbiologist in implementation of an Antibiotic stewardship program in a hospital.
4. Discuss the impact of Sample collection and transport of samples on the reports given by a Microbiology laboratory.
5. Viral load monitoring: Principle and role in management of viral infections.
6. Community acquired Pneumonia: List the common causes and discuss approach to diagnosis.
7. Discuss the steps for identification and management of an outbreak of Diarrhoea, needing admission among construction workers.
8. Discuss the aetiology of PUO. Outline the approach to diagnosis for any one of them.
9. Principle and application of Next Generation sequencing in the Microbiology laboratory.
10. List the agents of Bioterrorism. Discuss the principle and use of a CLASS 2 biosafety cabinet.
