

## ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH MBBS DEGREE - IInd PROFESSIONAL - SUPPLEMENTARY EXAMINATION - APRIL 2025 MICROBIOLOGY - PAPER - II

TIME: 3 Hrs Max. Marks: 100 Marks (80 Theory + 20MCQs)

## NOTE:

- Attempt all questions.
- This question paper consists of two sections: Section A Multiple Choice Questions and Section B - Theory Questions.
- Both sections have different paper codes. Write correct paper code on respective sheet.
- Write correct MCQ paper set on OMR sheet.
- Answer MCQs on the provided OMR sheet and theory questions on the provided answer booklet.
- Any attempt to use unfair means will result in disqualification.

## SECTION B - THEORY QUESTIONS

PAPER CODE: 2522230006

Q.1 Long Answer Question

15 MARKS

- Define Sterilization and Disinfection. Classify steriliants/sterilization agents and describe principle of Autoclave.
- Q.2 Clinical Case Scenario based Structured Question

15 MARKS

- A 25-year-old patient developed sudden onset of high-grade fever with chills and rigor. On exam, muscle tone and reflexes were reduced and splenomegaly was found. Blood smear reveals anemia and erythrocytes with multiple ring form.
- What is the most probable clinical diagnosis and most likely etiological agent?
   2 marks
- Describe pathogenesis and various laboratory methods used to diagnose this infection.
- iii) Write in detail about the complications caused by this organism. 5 marks
- Q.3 Short Note Question (Within 500 Words)

 $5 \times 6 = 30 \text{ MARKS}$ 

i) Define Hypersensitivity Reactions. Write in Details about Type I Hypersensitivity Reaction.



- ii) Extended-Spectrum Beta-Lactamase (ESBL).
- iii) What is antimicrobial stewardship & how can we use antimicrobial agents rationally?
- iv) Describe different modes of Gene transfer in Bacteria.
- v) Describe three types Antigen and antibody reaction with principle and mechanism.
- Q.4 Short Answer Questions (Within 100 Words)

 $5 \times 4 = 20 \text{ MARKS}$ 

- i) Amoebic liver abscess.
- ii) Campylobacter jejuni.
- iii) Differences between gram positive and gram negative bacteria.
- iv) Enumerate the agents causing Lymphatic filariasis.
- v) Biomedical waste management.



