Roll No. | | | | | | |

Answer Sheet No. 25

Sig. of Candidate._____

Sig. of Invigilator._____

MICROBIOLOGY HSSC–I

SECTION – A (Marks 10)

Time allowed: 10 Minutes

NOTE: Section–A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 10 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

(i) Which of the following scientist is known as the first microbiologist?

A. Paul Ehrlich B. Edward Jenner

C. Antony Van Leeuwenhoek D. Joseph Lister

(ii) Which of the following is a lactose fermenting bacteria?

A. Salmonella typhi B. Shigella flexneri

C. Escherichia coli D. Proteus vulgaris

(iii) Which of the clinical specimen should not be centrifuged?

A. Non purulent B. Purulent

C. Containing mucus D. Containing blood

(iv) Which of the following is true for Corynebacterium diphtheriae?

A. Bacillary dysentery

B. Food poisoning

C. Formation of pseudo membrane in nasopharynx

D. Pneumonia

(v) Which of the following kills microorganisms?

A. Bacteriostatic B. Bactericidal

C. Preservative D. Antiseptic

(vi) The period between inoculation of bacteria in a culture medium and beginning of multiplication is known as:

A. Lag phase B. Log phase

C. Stationary phase D. Decline phase

(vii) Biological control used in an autoclave is the spores of:

A. Bacillus cereus B. Bacillus stearothermophilus

C. Clostridium perfringens D. Clostridium histolyticum

(viii) Which of the following penicillins is resistant to β lactamases?

A. Cloxacillin B. Carbenicillin

C. Penicillin G D. Ampicillin

(ix) The mode of transmission of Vibrio cholerae is through:

A. Inhalation B. Ingestion

C. Inoculation D. Through personal contact

(x) Usual dosage of purified protein derivative in Mantoux test is:

A. 5 IU B. 50 IU

C. 100 IU D. 150 IU

For Examiner's use only:

Total Marks: 10

Marks Obtained:

MICROBIOLOGY HSSC–I

Time allowed: 2:20 Hours **Total Marks Sections B and C: 40**

NOTE: Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet–B if required. Write your answers neatly and legibly.

SECTION – B (Marks 26)

Q. 2 Answer any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. (13 x 2 = 26)

(i) Define avidity of antitoxin.

(ii) Define Heaf test.

(iii) Write a note on bacterial capsule.

(iv) Write a note on enriched media.

(v) Enumerate the types of radiations used for sterilization.

(vi) Define the grouping of bacteria on the basis of temperature.

(vii) What do the following abbreviations stand for?

BCG ELISA TCBS NADP

(viii) Write a note on catalase test.

(ix) Name four bacteria causing meningitis.

(x) Write a note on log phase of bacteria.

(xi) Define disinfection and antisepsis.

(xii) Write a note on transmission routes of human viruses.

(xiii) Differentiate between useful and empty magnification of microscope.

(xiv) Enumerate the ways of controlling antimicrobial resistance.

(xv) Name the causative agent and stages of syphilis.

(xvi) Write down the morphology and cultural characteristics of Neisseria meningitidis.

(xvii) Write a note on pathogenicity of Clostridium perfringens.

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks. (2 x 7 = 14)

Q. 3 Discuss pathogenesis and laboratory diagnosis of polioviruses.

Q. 4 Write a comprehensive note on transmission, pathogenicity and laboratory diagnosis of Mycobacterium leprae.

Q. 5 How are culture media sterilized? Describe the various methods of sterilization by dry heat.