Roll No. | | | | | | | Answer Sheet No._____

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) The term microbiology as the study of living organisms of microscopic size was coined by:

A. Robert Koch B. Antony Van Leeuwenhoek

C. Louis Pasteur D. John Hunter

(ii) Which of the following organisms utilize only glucose but not maltose?

A. Neisseria meningitidis B. Neisseria sicca

C. Neisseria gonorrhoeae D. Neisseria flavescens

(iii) DNase test is used for identification of:

A. Mycobacterium bovis B. Staphylococcus aureus

C. Streptococcus pneumoniae D. Brucella canis

(iv) Which of the following is caused by Clostridium perfringens?

A. Mastitis B. Conjunctivitis

C. Gas gangrene D. Cutanious diphtheria

(v) Iodine is used as mordant in:

A. Z N Staining B. Gram's Staining

C. Hiss Staining D. Albert Staining

(vi) All bacteria that inhabit the human body are:

A. Autotrophs B. Heterotrophs

C. Phototrophs D. Chemolithotrophs

(vii) Stuart's transport medium is used for transport of specimen containing:

A. Salmonella B. Vibrio Cholerae

C. Neisseria gonorrhoeae D. Shigella

(viii) Penicillins and Cephalosporins interfere with:

A. Cell wall synthesis B. Cell membrane function

C. DNA function D. Protein synthesis

(ix) Shick test is used to check the susceptibility of an individual to which organism?

A. Vibrio cholerae B. Corynebacterium diphtheriae

C. Streptococcus pneumoniae D. Mycobacterium tuberculosis

(x) Which of the following types of leprosy is the most infectious?

A. Lepromatous leprosy B. Tuberculoid leprosy

C. Borderline leprosy D. Indeterminate leprosy

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 cultural characteristics of Corynebacterium diphtheriae.

(ii) Define tuberculin test.

(iii) Write a note on fimbriae or pili.

(iv) Write a note on Enrichment media.

(v) Enumerate the chemicals used for disinfection and antisepsis.

(vi) Define the grouping of bacteria on the basis of oxygen requirement.

(vii) What do the following abbreviations stand for:

a) STD b) PCR c) AFB d) XLD

(viii) Write a note on Coagulase test.

(ix) Name four bacteria causing urinary tract infection.

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

(xi) Define sterilization.

(xii) Write a note on transmission routes for animal viruses.

(xiii) Define resolution of microscope. Which lens gives better resolution in Binocular microscope?

(xiv) Enumerate the ways by which bacteria become resistant to antimicrobial agents.

(xv) Name the causative agent and types of leprosy.

(xvi) Write down the morphology and cultural characteristics of E-Coli.

(xvii) Write a note on pathogenicity of Neisseria gonorrhoeae.

SECTION – C (Marks 14)

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

Q. 3 Discuss replication of viruses.

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

Q. 5 How do bacteria acquire antimicrobial resistance? Describe antimicrobial sensitivity testing by stokes disc diffusion method.