MICROBIOLOGY HSSC–I
SECTION – A (Marks 10)

Time allowed: 10 Minutes | **Version Number** 1 8 5 5

Note: **Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which 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 **Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.**

1) The study of microorganisms is called:
   A. Haematology B. Microbiology
   C. Immunology D. Molecular Biology

2) Rheumatoid Arthritis is diagnosed by the following test:
   A. VDRL B. Widal
   C. Streptolysin O titre D. R.A Factor

3) The Catalax test is used to identify:
   A. Neisseria Meningitidis B. Staphylococcus
   C. Streptococcus Pyogenic D. Enterococcus

4) Which of the following is called 'filamentous bacteria'?
   A. Bacilli B. Stalked bacteria
   C. Spirochetes D. Actinomycetes

5) The iodine used in Gram's staining serves as:
   A. Chelator B. Catalyst
   C. Mordent D. Cofactor

6) Dry heat sterilization is achieved by:
   A. Autoclave B. Hot air oven
   C. Inspissator D. Incubator

7) Biological indicator used in the hot air oven is:
   A. B. Stearothermophilus B. B. Subtilis
   C. C.S. Typhi D. None of these

8) Identify the term that describes a disinfectant that can kill bacteria:
   A. Bactericidal B. Bacteriostatic
   C. Pathogenic D. Bacteriosis

9) Which of the following is a common Gram positive bacteria?
   A. Rhizobium of root nodules B. Lactobacillus in curd
   C. Escherichia coli D. None of these

10) Which of the following is a transport media?
   A. Blood agar B. Manitol salt agar
   C. Chocolate agar D. Alkaline peptone water

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) How is resolution of microscope calculated?

(ii) Differentiate between the immunology and parasitology.

(iii) Write down the principle of Gram staining.

(iv) Define the sterilization and disinfection.

(v) How is Antistreptolysin O Titre performed?

(vi) What is 'flourochrome smeer' to detect the Myocobacterium Tuberculosis?

(vii) What is selective media? Give two examples.

(viii) Write four differences between 'alpha haemolysis' and 'beta haemolysis'.

(ix) Write down the names of toxins produced by 'Staphylococcus Aureus'.

(x) Write down the four differences between Staphylococcus and streptococcus species.

(xi) Write down the principle of Naglar reaction.

(xii) Write down the morphology and staining reaction of streptococcus species.

(xiii) Write down the pathogenicity of vibro cholera?

(xiv) Write down the classification of streptococcus species?

(xv) Name the infections commonly caused by pseudomonas Aeruginosa?

(xvi) What is dengue virus? And what does it cause?

(xvii) Name the common modes of transmission of HIV?

SECTION – C (Marks 14)

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

Q. 3 Write down the methods of dry heat sterilization in detail?

Q. 4 Describe in detail the antimicrobial resistance?

Q. 5 Write down the modes of transmission, pathogenicity and lab diagnosis of Mycobacterium Tuberculosis.