



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 bacteria is gram negatives bacteria?

A. Escherichia Coli	B. Staphylococcus Aureus
C. Streptococcus Pneumoniae	D. Clostridium Pefringens
- (ii) The Typhoid fever is diagnosed by the following test:

A. VDRL	B. RPR
C. ASOT	D. Widal test
- (iii) The coagulase test is used to differentiate:

A. Staphylococcus Epidermidis from Neisseria meningitides	B. Staphylococcus Aureus from staphylococcus epidermidis
C. Streptococcus pyogenes from staphylococcus aureus	D. Streptococcus pyogenes from enterococcus faecalis
- (iv) Cork-screw shaped forms of bacteria are:

A. Bacilli	B. Stalked bacteria
C. Spirochaetes	D. Actinomycetes
- (v) The iodine is retained by the following part of bacterial cell wall:

A. Chitin	B. Cellulose
C. Dextran	D. Peptidoglycan
- (vi) Sterilization involves the use of a physical or chemical procedure to:

A. Remove visible soil from surgical instruments	B. Destroy non-pathogenic organisms
C. Destroy all forms of microbial life including highly resistant microbial spores	D. Destroy all forms of microbial life except spores
- (vii) Sterilization by hot air oven requires temperature of at:

A. 160 °C for 60 minutes	B. 120 °C for 15 minutes
C. 20 °C for 120 minutes	D. 80 °C for 30 minutes
- (viii) Bactericidal agents mean:

A. Which inhibit growth of bacteria	B. Those stimulate growth of bacteria
C. Which kills the bacteria	D. All of these
- (ix) Following is enriched media except:

A. Chocolate agar	B. Blood agar
C. Loeffler serum slope	D. Mannitol salt agar
- (x) The study of microorganisms is called:

A. Biochemistry	B. Molecular biology
C. Microbiology	D. Neurology

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) Name the major parts of microscope.
- (ii) Differentiate between serology and microbiology.
- (iii) Write down the principle of Gram's Stain.
- (iv) What do you mean by Bacteriocidal?
- (v) Write down the principle of pregnancy test.
- (vi) What is enriched media?
- (vii) Write the toxigenicity testing of C.Diphtheria.
- (viii) What is enteric fever, which bacteria cause the enteric fever?
- (ix) Name the toxins and enzymes produced by the staphylococcus species.
- (x) Write down the Montoux reaction.
- (xi) Write down the morphology and staining reaction of streptococcus pneumoniae.
- (xii) Name the modes of transmission of Hepatitis B virus.
- (xiii) How to identify the acid fast bacilli by fluorescence microscopy.
- (xiv) Write down the classification of bacteria on the basis of Gram's staining.
- (xv) What do you mean by HIV and what it causes?
- (xvi) Name tests used for the identification of treponema palladium.
- (xvii) Write down the pathogenicity of Escherichia coli.

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks.

(2 x 7 = 14)

- Q. 3 Describe the susceptibility techniques used in microbiology lab.
- Q. 4 Write down the pathogenicity and laboratory diagnosis of Neisseria Gonorrhoeae.
- Q. 5 What is sterilization, describe in detail of sterilization using autoclave?