



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) Who is the father of microbiology?  
A. Robert Koch  
B. Louis Pasteur  
C. Antony Van Leeuwenhoek  
D. Edward Jenner
- (ii) What is meant by the bending of light rays by a glass lens?  
A. Refraction  
B. Magnification  
C. Reflection  
D. Resolution
- (iii) What is the recommended temperature for sterilization by moist heat with pressure?  
A. 100°C for 30 mins  
B. 110°C for 25 mins  
C. 121°C for 20 mins  
D. 121°C for 25 mins
- (iv) With Albert Staining Procedure the metachromatic granules of *Corynebacterium diphtheriae* stain:  
A. Red  
B. Bluish black  
C. Green  
D. Yellow
- (v) What is the selective media for *V.cholerae*?  
A. Blood Agar  
B. Nutrient Agar  
C. TCBS Agar  
D. Mac Conkey's Agar
- (vi) Serotyping of *St. pneumoniae* is based on:  
A. Capsular polysaccharide  
B. Somatic antigen  
C. Nucleoprotein  
D. Flagellar antigen
- (vii) CAMP test is used for the presumptive identification of:  
A. *St. pneumoniae*  
B. *S. aureus*  
C. Lancefield Group B Streptococci  
D. Lancefield Group A streptococci
- (viii) *Clostridium tetani* are:  
A. Spore forming and motile  
B. Spore forming and non-motile  
C. Non-Spore forming and non-motile  
D. Non-Spore forming and motile
- (ix) Which of the following media is the most suitable for antibiotic sensitivity testing:  
A. Mueller Hinton medium  
B. Nutrient agar  
C. Blood agar  
D. Mac Conkey Agar
- (x) The protein produced in animal cells as a defence against virus is called:  
A. Interleukin  
B. Interferon  
C. haemoglobin  
D. Flagellin

For Examiner's use only:

Total Marks:

10

Marks Obtained:



# MICROBIOLOGY HSSC-I

94

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) Differentiate between flagella and fimbriae in tabulated form.
- (ii) Write a note on differential media.
- (iii) Classify bacteria on the basis of temperature requirements.
- (iv) Enumerate the different methods for the care of microscope in laboratory.
- (v) Write a note on minimum inhibitory concentration of antimicrobial agents.
- (vi) Enumerate various methods of transmission of virus to human body.
- (vii) Write a note on street virus.
- (viii) Write a note on Prophylaxis against Cholera.
- (ix) Discuss antigenic structure of Salmonella.
- (x) Write a note on pathogenesis of E.Coli.
- (xi) Write a short note on leprosy.
- (xii) Write a note on Nagler's reaction.
- (xiii) Describe the pathogenicity of St.pneumoniae
- (xiv) Write the methods for testing the efficiency of autoclave.
- (xv) Write down Ziehl Neelsen staining method.
- (xvi) Write a note on Schick test.
- (xvii) Write down morphology and staining behaviour of Cl.tetani.

## SECTION – C (Marks 14)

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

(2 x 7 = 14)

- Q. 3 Name various organisms causing sore throat and discuss in detail the laboratory diagnosis of diphtheria.
- Q. 4 Discuss in detail Kirby-Bauer disc diffusion method for antimicrobial sensitivity testing.
- Q. 5 How are culture media sterilized? Describe the various methods of sterilization by dry heat.