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Answer Sheet No. _____

Sig. of Candidate. _____

Sig. of Invigilator. _____

StudentBounty.com**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 substances is known to strengthen the bacterial cell wall?
- | | |
|-------------------|-------------------|
| A. Polysaccharide | B. Peptidoglycane |
| C. Lipoprotein | D. Phospholipids |
- (ii) Which of the following scientists is known as the father of bacteriology?
- | | |
|----------------|------------------|
| A. Lord Lister | B. Louis Pasteur |
| C. Robert Koch | D. Leeuwenhoek |
- (iii) Which of the following techniques is best to stain Acid Fast Bacilli (AFB)?
- | | |
|----------------------|---------------------|
| A. Z.N. staining | B. Gram's staining |
| C. Albert's staining | D. Gimsa's staining |
- (iv) When microorganisms enter the body, it is known as _____
- | | |
|------------------|--------------|
| A. Pathogenicity | B. Virulence |
| C. Disease | D. Infection |
- (v) Bacterial cell without cell wall is known as _____
- | | |
|---------------|----------------|
| A. Protoplast | B. Spheroplast |
| C. L. Forms | D. Nucleoplast |
- (vi) Ability of a microscope to distinguish between two very close dots is known as _____
- | | |
|------------------------|-------------------------|
| A. Magnification power | B. Identification power |
| C. Resolving power | D. Total magnification |
- (vii) Which of the following substances is used for the synthesis of stains?
- | | |
|------------|---------------|
| A. Aniline | B. Methylene |
| C. Iodine | D. Penicillin |
- (viii) Which of the following bacteria are cultured best on chocolate agar?
- | | |
|-----------------|---------------------------------|
| A. Staph-Aureus | B. Brucella |
| C. Neisseria | D. Corynae Bacterium Diphtheria |
- (ix) Which of the following drugs is **NOT** a Bacterial antibiotic?
- | | |
|--------------------|-------------------|
| A. Chloromphenicol | B. Sulphonamides |
| C. Vancomycin | D. Cephalosporins |
- (x) Which of the following viruses is known to cause Rabies?
- | | |
|---------------|---------------|
| A. Myxovirus | B. Reovirus |
| C. Retrovirus | D. Rabdovirus |

For Examiner's use only:**Total Marks:****10****Marks Obtained:**



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

- (i) Give four major differences between Prokaryotic and Eukaryotic microorganisms.
- (ii) What are the stages of bacterial growth? Show diagrammatically.
- (iii) Define Spirochaetes and classify them.
- (iv) What is Bacterial capsule?
- (v) Why do Bacteria need energy? List the functions of bacterial metabolism.
- (vi) What are Pili? Write down its functions.
- (vii) Define Toxoides. Why are they important? Give two examples
- (viii) What is Catalase test? Why is it performed?
- (ix) What do the following abbreviations stand for:
a. ELISA b. STD c. PCR d. NADP
- (x) What are the types of Dry heat sterilization? Also write their importance.
- (xi) What is meant by Chemotherapeutic agents?
- (xii) What is Condenser? What is its use in the microscope?
- (xiii) What are the modes of action of antimicrobial agents on bacterial population.
- (xiv) What are the known viral hosts? Also name the modes of viral transmission.
- (xv) Define Meningitis.
- (xvi) Define Normal flora. Name any four bacteria causing urinary tract infection.
- (xvii) What are the basis for classification of viruses? List their different classes.

SECTION – C (Marks 14)

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

(2 x 7 = 14)

- Q. 3** Give a comprehensive account for the Transmission, Pathogenicity and lab.diagnosis of Mycobacterium Tuberculosis.
- Q. 4** How are viruses different from bacteria? What is the chemical composition of viruses and what is their general structure?
- Q. 5** What is the importance of Biochemical Tests for bacterial identification?
Write a detailed note on Urease Test. Also write its importance.