

Seat No. : \_\_\_\_\_

**DH-102**

**December-2013**

**B.Sc. Sem-I**

**CC-3 : Microbiology (Paper-101)**

**Time : 3 Hours]**

**[Max. Marks : 70**

**Instruction :** All questions carry equal marks.

1. Discuss : (any **two**) **14**
  - (1) Any two experiments proving theory of Biogenesis.
  - (2) Contribution of Joseph Lister in the field of Microbiology.
  - (3) Koch's postulates.
  - (4) Work of serge Winogradsky in the field of soil microbiology.
  
2. Write note on : (any **two**) **14**
  - (1) Habitats of Microorganisms.
  - (2) Distinctive features (general characters) of Bacteria.
  - (3) Fungi
  - (4) Acellular Organisms
  
3. Describe in detail : (any **two**) **14**
  - (1) Branches of Microbiology.
  - (2) Type of work performed by Microbiologist.
  - (3) The basic steps of Genetic Engineering.
  - (4) Streak plate method for isolation of Bacteria.
  
4. Write in detail : (any **two**) **14**
  - (1) How does Electron Microscope differ from light microscope ?
  - (2) Fluorescence Microscope
  - (3) Steps involved in Gram's staining and importance of each step.
  - (4) Note on Endospore staining and cellwall staining.

5. Write answer in **one** word or **one** sentence :

**14**

- (1) Who has suggested the use of agar agar powder as solidifying agent ?
  - (2) Define Fermentation.
  - (3) What do you mean by Antibiosis and Antibiotic ?
  - (4) What are Lichens ?
  - (5) What is the difference between Viroids and Prions ?
  - (6) Define Protoplasm.
  - (7) What is Phycology ?
  - (8) What is Mutualism ?
  - (9) Define Nitrogen Fixation.
  - (10) Relation between NA and resolution.
  - (11) Function of condenser in light microscope.
  - (12) Difference between dye and stain.
  - (13) Full form of ITCC.
  - (14) Define Lyophilization.
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