



Seat No. : _____

TH-122

F.Y. B.Sc. Sem.-I

May-2013

101 MICROBIOLOGY

(Introduction to Microbial World)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) All questions carry equal marks.
(2) Draw figure wherever necessary.

1. Explain the following : (any **two**) **14**
- (a) Discovery of viruses.
 - (b) Developments in pure culture techniques.
 - (c) Establishment of germ theory of diseases.
 - (d) Establishment of principle of vaccination.
2. Answer the following : (any **two**) **14**
- (a) Explain the diversity in microbial habitat.
 - (b) Differentiate between prokaryotic and eukaryotic cells.
 - (c) Describe the distribution of microbes in nature.
 - (d) Give brief account of the general characters of fungi.
3. Describe the following : (any **two**) **14**
- (a) Branches of microbiology.
 - (b) Methods of obtaining pure culture.
 - (c) Positive impacts of microorganisms on human life.
 - (d) Preservation of pure culture.

4. Explain the following : (any **two**) **14**
- (a) Smear fixation and its applications.
 - (b) Principle and applications of fluorescent microscopy.
 - (c) Limitations of electron microscopy.
 - (d) Applications of stains in microbiology.
5. Answer the following : (not more than two lines) **14**
- (a) Define pasteurization.
 - (b) What is meant by aseptic technique ?
 - (c) What is axenic culture ?
 - (d) Define chemotherapy.
 - (e) What is resolving power ?
 - (f) Define thermophilic bacteria.
 - (g) Who invented microscope ?
 - (h) Give example of a basic stain.
 - (i) What is a leucocompound ?
 - (j) Name two culture collection centres.
 - (k) Who found free living nitrogen fixing bacteria azotobacter ?
 - (l) What are intensifiers ?
 - (m) What are a cellular organisms ?
 - (n) Give any one contribution of Beijerinck.
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