

F.Y.B.Sc. SEM – I (CBCS 2018 COURSE) : WINTER - 2018
SUBJECT : MICROBIOLOGY : INTRODUCTION TO MICROBIOLOGY

Day : Friday
Date : 12/10/2018

W-2018-0667

Time : 11.00 A.M TO 02.00 PM
Max. Marks : 60

N. B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw well labelled diagrams **WHEREVER** necessary.
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Q.1 Attempt **ANY TWO** of the following: (12)

- a) Describe the structure of DNA with well labelled diagram.
- b) Differentiate between Grams staining and Acid fast staining.
- c) Describe the principle, working and application of Light microscope.

Q.2 Answer **ANY TWO** of the following: (12)

- a) Explain the principle and procedure for staining of metachromatic granules. Add a note on metachromism.
- b) Describe the structure and function of ATP.
- c) Differentiate between Monochrome and Negative staining methods.

Q.3 Attempt **ANY TWO** of the following: (12)

- a) Comment on – “Microbes and Human Diseases”.
- b) Describe the structure of Proteins.
- c) Differentiate between Transmission electron microscope and Scanning electron microscope.

Q.4 Write short notes on **ANY THREE** of the following: (12)

- a) Structure and functions of Flagella.
- b) Contribution of Antony Van Leeuwenhoek.
- c) Capsule staining.
- d) Disaccharides.

Q.5 Attempt **ANY FOUR** of the following: (12)

- a) Define the terms – Biotechnology, Chemotherapy, and Genetic Engineering.
- b) Comment on – “The Golden Era of Microbiology”.
- c) What is the principle of Dark field microscope?
- d) What are ionic bonds?
- e) Describe the types of lipids.
- f) Write a note on – ‘The future of Microbiology’.

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