

BACHELOR OF SCIENCE (CBCS-2018 COURSE)
F. Y. B. Sc. Sem-I : WINTER :- 2021
SUBJECT: MICROBIOLOGY : INTRODUCTION TO MICROBIOLOGY

Day : Monday
Date 17-01-2022

W-18304-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
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- Q.1** Attempt **ANY TWO** of the following. **(12)**
- a) Elaborate on – Koch and Pure Culture Techniques.
 - b) Describe covalent bonding with suitable examples.
 - c) Discuss the Primary and Secondary structure of Proteins.
- Q.2** Attempt **ANY TWO** of the following. **(12)**
- a) Describe the structure and types of RNA.
 - b) What is the role of microbes in our lives?
 - c) What is a pure culture and how can it be obtained?
- Q.3** Attempt **ANY TWO** of the following. **(12)**
- a) Discuss the principle, procedure and applications of Acid fast staining.
 - b) Write a note on – Spontaneous generation theory.
 - c) Describe the principle, working and applications of light microscopy.
- Q.4** Write short notes on **ANY THREE** of the following. **(12)**
- a) Ionic bonds
 - b) Properties of carbohydrates
 - c) Preparation and fixation of smear
 - d) Lenses in Microscope
 - e) Model of DNA
- Q.5** Attempt **ANY FOUR** of the following. **(12)**
- a) Comment on ATP as a high energy compound.
 - b) What are the various properties of lipids?
 - c) Define/explain the terms – Capsule, flagella and endospore.
 - d) What are reversible reactions?
 - e) Discuss the various applications of electron microscope.
 - f) What is the significance of using acidic and basic stains in cell wall staining?

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