

M. Sc. (Medical Biotechnology) Sem-I (Choice Based Credit System)
SUMMER - 2019
SUBJECT : MEDICAL MICROBIOLOGY

Day :: Friday
Date : 05/04/2019

Time : 02.00 PM TO 05.00 PM
Max. Marks : 60

S-2019-1501

N.B.

- 1) **Q.1 and Q.5 are COMPULSORY.** Attempt any **TWO** questions from **Q.2, 3,4** and any **TWO** questions from **Q.6,7,8.**
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SAME** answer book.
- 4) Draw neat diagrams **WHEREVER** necessary.

SECTION – I

- Q.1** Attempt any **TWO** of the following: (10)
- a) Describe virulence factors of bacteria with examples.
 - b) With the help of suitable diagram explain the principle of compound microscope.
 - c) Describe the nutritional requirement of bacteria and explain the bacterial growth curve.
- Q.2** Answer the following: (10)
- a) Differentiate between cell wall of Gram Positive Bacteria and Gram Negative Bacteria.
 - b) Describe differential staining techniques with suitable examples.
- Q.3** Answer the following: (10)
- a) Define “Sterilization” and explain filtration as a method of sterilization.
 - b) Describe the biochemical tests based on sugar utilization for identification of bacteria.
- Q.4** Write short notes on: (10)
- a) Precipitation test
 - b) Contributions of Robert Koch

SECTION – II

- Q.5** Attempt any **TWO** of the following: (10)
- a) Describe general characteristics of fungi and elaborate morphological classification of fungi with suitable examples.
 - b) Explain the laboratory diagnostic methods for haemoparasites.
 - c) What are viruses? Describe different methods of cultivation of viruses.
- Q.6** Briefly describe the following: (10)
- a) Describe emerging bacterial infections with examples.
 - b) Describe principle and applications of ELISA.
- Q.7** Elaborate on: (10)
- a) Stool concentration methods
 - b) Processing of urine
- Q.8** Briefly describe (10)
- a) Common diagnostic methods for sputum.
 - b) Carriers

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