

**M. Sc. (Medical Biotechnology) Sem-I (Choice Based Credit System) :
WINTER - 2018**

SUBJECT : MEDICAL MICROBIOLOGY

Day : Friday
Date : 26/10/2018

W-2018-1292

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

N. B. ;

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining attempt **ANY TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer books.
- 4) Draw neat and labeled diagram **WHEREVER** necessary.

SECTION – I

- Q. 1** Answer **ANY TWO** of the following: (10)
- a) With the help of suitable diagram, write the principle and applications of dark field microscope.
 - b) Define sterilization. Enlist physical methods of sterilization and elaborate on dry heat sterilization.
 - c) Define the term infection and explain various virulence factors of bacteria.
- Q. 2** Answer the following: (10)
- a) Difference between Cell wall of Gram positive bacteria and Gram negative bacteria
 - b) Enrichment culture media with examples.
- Q. 3** Describe briefly : (10)
- a) What is anaerobiosis? Explain anaerobiosis with Mc Intosh Filde's jar.
 - b) Extra cellular features of bacteria.
- Q. 4** Write short notes on **ANY TWO** of the following: (10)
- a) Koch's postulates
 - b) Biochemical tests based on protein metabolism
 - c) Standard safety precautions

SECTION – II

- Q. 5** Answer **ANY TWO** of the following: (10)
- a) What are parasites? Elaborate classification of parasites with suitable examples.
 - b) Explain diagnostic methods for dermatophytoses.
 - c) Describe agglutination reactions
- Q. 6** Briefly describe: (10)
- a) Processing of urine sample
 - b) Nucleic acid based techniques for diagnosis of microbial infections.
- Q. 7** Write short notes on the following: (10)
- a) Immunoassays
 - b) Virus cultivation methods
- Q. 8** Briefly explain: (10)
- a) Processing of sputum sample
 - b) Diagnosis of parasites in stool

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