

**M. SC. (MEDICAL BIOTECHNOLOGY) SEM-I (CHOICE
BASED CREDIT SYSTEM) : WINTER - 2017**

SUBJECT: MEDICAL MICROBIOLOGY

Day : Wednesday
Date : 08/11/2017

W-2017-1048

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 questions attempt **ANY TWO** questions from each section.
- 2) Figures to the right indicate **Full** marks
- 3) Answer the questions of section-I and Section-II in **SEPARATE** answer books.

SECTION-I

- Q.1** Attempt **ANY TWO** of the following: **(10)**
- a) Draw a labelled diagram of typical bacterial cell and describe difference between cell wall of Gram positive and Gram negative bacteria.
 - b) Define the term sterilization and describe principal, working and control of hot-air oven.
 - c) Describe principal of dark ground microscope with the help of ray diagram and its uses.
- Q.2** Answer the following: **(10)**
- a) Virulence factors of bacteria.
 - b) Host defense mechanisms.
- Q.3** Describe the following: **(10)**
- a) Growth curve of the bacteria
 - b) IMViC test
- Q.4** Write short notes on following: **(10)**
- a) Contributions of Louis Pasteur.
 - b) Negative staining technique-examples and uses.

SECTION-II

- Q.5** Answer **ANY TWO** of the following: **(10)**
- a) Types of agglutination reactions.
 - b) Describe differences between infection and diseases. Enlist various sources of infections with examples.
 - c) Write methods of cultivation of viruses.
- Q.6** Briefly describe the following: **(10)**
- a) Classification of parasites based on organ of locomotion with examples.
 - b) Describe general methods of laboratory diagnosis of fungal infections.
- Q.7** Write short notes on following: **(10)**
- a) Differentiate between active and passive immunity.
 - b) Polymerase chain reaction.
 - c) Nosocomial infections.
- Q.8** Answer the following: **(10)**
- a) Processing of urine sample for diagnosis of urinary tract infection
 - b) Emerging microbial infections.

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