



GAY-415

Seat No. _____

B. Sc. (Sem. IV) Examination

March / April - 2017

Biotechnology - CCC-I-6 Paper - VI

(Core Compulsory Course-I)

(Fundamentals of Microbiology)

Time : 3 Hours]

[Total Marks : 70

1 Answer any 10 questions. Each question carries 1 mark
(15x1=15 M).

- (1) Bacterial sexual reproduction is possible due to presence of _____.
- (a) Flagella
 - (b) Cilia
 - (c) Pili
 - (d) None of these
- (2) T4 Phages are called _____.
- (a) Virulent phages
 - (b) Temperate phages
 - (c) Bacteriophages
 - (d) None of these

- (3) Bacteria that use chemical as source of energy and inorganic carbon as electron source are called _____.
- (a) Chemolithotrophs
 - (b) Chemoorganotrophs
 - (c) Heterotrophs
 - (d) Autotrophs
- (4) Causative agent of Amoebiasis is _____.
- (a) *Antamoeba histolytica*
 - (b) *Trichophyton* spp.
 - (c) *Epidermophyton* spp.
 - (d) None of these
- (5) Lactic acid is produced during _____ phase of Bacterial growth curve.
- (a) Lag
 - (b) Log
 - (c) Stationary
 - (d) Death
- (6) Bacterial growth curve is obtained by plotting
- (a) number of cells versus time
 - (b) number of spores versus time
 - (c) log of number of cells versus time
 - (d) log of number of cells survived versus time
- (7) Size of HEPA filter is _____.
- (a) 0.3 μm
 - (b) 0.22 mm
 - (c) 0.3 mm
 - (d) None of these

- (8) Causative agent of TB is _____.
- (a) Mycobacterium
 - (b) Treponema palidum
 - (c) Salmonella Typhi
 - (d) None of these
- (9) _____ radiation is used to control the microbial growth.
- (a) U.V
 - (b) Gamma
 - (c) Microwave
 - (d) All of these
- (10) AIDS is a syndrome that is determined by _____.
- (a) Blood test
 - (b) Blotting technique
 - (c) Urine test
 - (d) None
- (11) _____ is defined as complete destruction of all types of microbial life.
- (a) Disinfection
 - (b) Sterilization
 - (c) Gemicide
 - (d) Antisepsis
- (12) _____ are the examples of metabolites that are produced by Fungi.
- (a) Antibiotic
 - (b) Immunosuppressants
 - (c) Ergot Alkaloids
 - (d) All of these
- (13) Define infectious disease
- (14) Define Photoautotrophic organism
- (15) Full name of RuBISCO

2 Answer any **five** of the following. Each question carries 5 marks (5x5=25)

- (1) Write a note on bacterial growth with diagram
- (2) Write a brief note on Algae as farmer - friends
- (3) Write a note on Anaerobic bacteria
- (4) Describe General methods for classification of bacteria.
- (5) Draw a labelled diagram of Lytic cycle of Bacteriophage.
- (6) Write a brief note on Chemolithotrophy.

3 Answer any **three** of the following. Each question carries 10 marks (3x10=30).

- (1) Write down the application & mode of action of chemical agent for microbial control.
- (2) Describe metabolic diversity of bacteria.
- (3) Write down the Economic importance of Fungi.
- (4) Describe the General Isolation method for bacteria
- (5) Explain major characteristics of Virus.