



HBY-1017

Seat No. _____

B. Sc. (Sem. IV) Examination

April / May - 2015

**Biotechnology - CCC-1-6 : Paper VI
(Fundamentals of Microbiology)
[Core Compulsory Course - I]**

Time : 3 Hours]

[Total Marks : 70

- 1** Answer the following M.C.Q. **10**
1. In lysogenic cycle, the complete attachment site of phage is designed as
(a) BOB' (b) att B
(c) POP' (d) att P
 2. In Bacterial growth curve, exponential phase is also called
(a) Lag (b) Log
(c) Idio (d) Death
 3. Which of the following is a macronutrient ?
(a) Manganese (b) Molybdenum
(c) Zinc (d) Cobalt
 4. Which of the following procedures can be used to isolate a pure culture of a bacterium from a mixture ?
(a) Streak plate
(b) Pour plate
(c) Enrichment culture
(d) None of above

5. All of the following are true about agar except it
- (a) Liquefies at 100' C
 - (b) Is a polysaccharide derived from a red alga
 - (c) Is metabolized by many bacteria
 - (d) Solidifies at approximately 40'C
6. The causative agent for cholera in human is a member of the genus
- (a) Shigella
 - (b) Enterobacter
 - (c) Vibrio
 - (d) Bacillus
7. Fungi are important in the production of all of the following commercial produces except
- (a) Bread
 - (b) Beer
 - (c) Antibiotic
 - (d) Rubber
8. Virus requires _____ for growth.
- (a) Plant
 - (b) Animal
 - (c) Bacteria
 - (d) Living cells
9. Which protein keeps the prophage dormant and prevents virus reproduction.
- (a) Operator
 - (b) Promotor
 - (c) Repressor
 - (d) Inducer
10. An example of disease transfer between hosts by direct contact is
- (a) Cholera
 - (b) T.B.
 - (c) Gonorrhoea
 - (d) Typhoid

- 2** Write a short note on following. (Any five) **30**
- (1) Write down general methods of classifying bacteria.
 - (2) Describe the morphology and structure of Bacteriophage T2.
 - (3) Write down ecological importance of Algae.
 - (4) Write down the methods for the measurement of bacterial growth.
 - (5) Explain Radiation as a physical control agent.
 - (6) Write down general mode of action of Antibiotic.
 - (7) Write a note on Amoebiasis.
 - (8) Write down the application and mode of action of Phenol and Alcohol.

- 3** Explain in detail : (Any three) **30**
- (1) Give a detail note on lamda YSOGENIC cycle.
 - (2) Explain antifungal and antiviral antibiotic.
 - (3) Give a detail note on AIDS.
 - (4) Explain major characteristic of microorganism.
 - (5) Write down methods for the isolation of bacteria and types of culture media.
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