



**KAI-1265**

Seat No. \_\_\_\_\_

**B. Sc. (Sem. IV) Examination**

April / May - 2013

**Biotechnology - CCC-I-6 Paper - VI**

*(Core Compulsory Course-I)*

*(Fundamentals of Microbiology)*

Time : 3 Hours]

[Total Marks : 70

- 1 Give the answer of Multiple Choice Question : 7
- (1). A bacterial possess bunch of flagella at one end: Arrangement is referred as  
(A) Monotrichous (C) Amphitrichous  
(B) Lophotrichous (D) Peritrichous
  - (2) Which of the foliowing is a commercial product obtained from walls of Algae ?  
(A) Agar-Agar powder  
(C) Carrageenan  
(B) Alginic acid  
(D) All of the above
  - (3) The \_\_\_\_\_ bacteria use chemical as source of energy and electron both.  
(A) Chemolithotrophs  
(B) Chemoorganotrophs  
(C) Heterotrophs  
(D) Autotrophs
  - (4) In growth curve, Exponential phase is known as \_\_\_\_\_.  
(A) Lag Phase  
(B) Log Phase  
(C) Stationary phase  
(D) Death phase

(5) Which wavelength of UV light has highest bactericidal effect ?

(A) 2650  $\text{\AA}$  (C) 1500  $\text{\AA}$

(B) 3600  $\text{\AA}$  (D) 3900  $\text{\AA}$

(6) 'An agent that reduce the microbial population to safe levels as judged by public health requirement'. Most suitably is called

(A) Antiseptic (C) Disinfectant

(B) Sanitizes (D) Antimicrobial agent

(7) Find mismatch pair

(A) Cell wall inhibition - Penicillin

(B) Protein synthesis Inhibition - Streptomycin

(C) Enzyme inhibitor - Gramicidin

(D) Antifungal - Nystatin

2 Briefly explain : (any six)

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(1) Control of AIDS infection.

(2) Define :

(a) Nosocomial infection

(b) Sterilization

(c) Virulence

(3) How will you measure bacterial growth? Enlist methods.

(4) Mention the application of chemical agent in cleaning.

(5) Mention the international code of nomenclature of Bacteria.

(6) Structure of Bacteriophage (Coliphage  $T_2$ )

(7) Type of bacteria based on Temperature and oxygen requirement

(8) What is HEPA? Give its application.

- 3 Explain in Detail : (any five) 35
- (1) Heavy metal in Bio control
  - (2) Classification of Viruses
  - (3) Economic importance of Fungi and Algae.
  - (4) Growth curve
  - (5) Introduction of Chemotherapy
  - (6) Temperature as physical control agent
  - (7) Tuberculosis.
- 4 Discuss in Detail : (any one) 10
- (1) Classes of Antibiotic
  - (2) Media constituents and Types of media.
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