



BS-1365

Seat No. _____

B. Sc. (Sem. - IV) Examination

April/May - 2014

CCC - I - 6 : Biotechnology : Paper - VI

(Fundamentals Of Microbiology)

Time : 3 Hours]

[Total Marks : 70

1 Multiple Choice Question. 7

- (i) Induction of lysogeny is brought about by
- (a) drying
 - (b) growing
 - (c) ultraviolet light
 - (d) visible light
- (ii) _____ fungi is used in cheese making.
- (a) *Penicillium notatum*
 - (b) *Penicillium roquefortii*
 - (c) *Penicillium chrysogenum*
 - (d) all of above
- (iii) Which of the following is differential media ?
- (a) MacConkey's agar
 - (b) EMB agar
 - (c) Both (a) and (b)
 - (d) None of (a) and (b)
- (iv) The mode of action of chloramphenicol is to inhibit
- (a) Cell wall synthesis
 - (b) Protein synthesis on 80S ribosome.
 - (c) Protein synthesis on 70s ribosome
 - (d) DNA replication.

- (v) The apparatus which works on the principle of free flowing steam to control the growth of microorganisms.
 - (a) Autoclave
 - (b) Steam arnold
 - (c) Hot air oven
 - (d) None of these
- (vi) The function of NaCl in media is to
 - (a) kill contamination
 - (b) Maintain osmotic balance
 - (c) as nutrient
 - (d) as a taste enhancer
- (vii) The antibiotics are the compounds produced by microorganisms in its
 - (a) log phase
 - (b) lag phase
 - (c) stationary phase
 - (d) death phase.

2 Give answer in short : (any seven)

7

- (i) Define antibiotic
- (ii) Give full form of HIV and AIDS
- (iii) Define : Chemotherapy
- (iv) What is photoautotrophs ?
- (v) Give examples of bacteriophage.
- (vi) Define : Infection
- (vii) What is opportunistic infection ?
- (viii) Define sterilization.
- (ix) Define Growth.
- (x) Give examples of thermophilic bacteria.

3 Give answer in brief : (any three)

12

- (i) Give economical importance of protozoa.
- (ii) Describe the types of bacteria based on carbon, energy and electron source.

- (iii) Write the application and mode of action of heavy metal.
- (iv) Discuss cholera.
- (v) Explain bacterial growth curve.

4 Write short note on : (any four) 20

- (i) Discuss economical importance of algae.
- (ii) Discuss various methods of isolation of bacteria.
- (iii) Explain mode of action of gaseous agent and its applications.
- (iv) Discuss Tuberculosis.
- (v) Explain mode of action of antiviral antibiotics.
- (vi) Explain phenol and alcohol as chemical agents.

5 Explain in detail : (any three) 24

- (i) AIDS.
 - (ii) Discuss general characteristics and economical importance of fungi.
 - (iii) Methods of measurement of bacterial growth.
 - (iv) Write in detail of origin of chemotherapy.
 - (v) Temperature as physical control agent.
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