

Seat No. : _____

AC-104

April-2016

B.Sc., Sem.-VI

CC-308 : Biochemistry

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) All questions carry equal marks.
(2) Draw diagrams wherever necessary.

1. (a) Define Sterilisation & write a note on sterilisation using moist heat. (06)
(b) Discuss different types of media with examples. (08)

OR

- (a) Discuss the mode of action & uses of : (10)
(1) Beta propiolactone
(2) Phenol
(3) Radiations
(b) Define and give an example of a Chemolithotroph and Photoorganotroph. (04)

2. (a) Discuss Diauxic Growth Curve in detail. (06)
(b) Discuss the effect of Temperature on the growth of bacteria & classify them according to Temperature. (08)

OR

- (a) Discuss the following : (12)
(i) Cultivation of Anaerobes,
(ii) Preservation of Pure Cultures
(b) Define and how you would calculate Generation Time. (02)

3. Discuss the Causative Agent, Transmission, Pathogenesis, Symptoms, Prophylaxis of Typhoid. (14)

OR

- (a) Discuss Source, Mode of action, Uses & Limitations of : 1. Pencillin
2. Tetracycline (10)
(b) Write a note on Drug Resistance. (04)

4. (a) Define & explain Continuous and Fed batch culture. (04)
(b) Discuss industrial production of : 1.Vinegar 2. Penicillin (10)

OR

- (a) Explain & draw a labelled diagram of a Bio-reactor. List its functions. (07)
(b) Write a note on production of Beer. (07)

5. Answer **all** questions briefly: (14)
- (1) What is the mode of action in a Hot Air Oven for sterilisation ? (01)
 - (2) What is Tyndallisation ? (02)
 - (3) Define pure culture and name two methods of isolating a pure culture. (02)
 - (4) Define Chemotherapeutic Index. (01)
 - (5) Give the full name of the vaccine used against Tuberculosis. (01)
 - (6) Give two advantages of Packed Bed Reactor. (02)
 - (7) Name two organisms used in the industrial production of Lysine. (01)
 - (8) Give example of
 - (1) Barophylic bacteria
 - (2) Halophylic bacteria. (02)
 - (9) Define Facultative Anaerobe with an example. (02)
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