

Seat No. : _____

SJ-124
September-2020
B.Sc., Sem.-VI
CC-308 : Biochemistry

Time : 2 Hours]

[Max. Marks : 50

SECTION – I

Answer any **three** from the following :

1. Define Sterilization. Explain the mode of action, uses & limitations of the following as sterilizing agents : (i) Chlorine (ii) Hot Air oven **14**

2. (a) Write a note on different nutritional categories of bacteria with examples. **7**
(b) Discuss the different types of Special Media used to culture bacteria. **7**

3. Define Generation Time. Explain growth curve of bacteria in detail. **14**

4. (a) Discuss the role of oxygen and water on bacterial growth giving examples. **7**
(b) Write a note on: Preservation of bacterial cultures. **7**

5. Discuss in detail the transmission, pathogenesis, symptoms, diagnostic tests & prevention of AIDS. **14**

6. (a) Write a note on : Drug Resistance. **7**
(b) Discuss mode of action, uses, resistance & limitations of Chloramphenicol. **7**

7. Discuss the industrial production of : (1) Beer (2) Biotransformation of Steroids **14**

8. (a) Explain the design and parts of a Bioreactor with a labelled diagram **7**
(b) Write a brief note on types of fermentation process. **7**

SECTION – II

9. Answer any **eight** from the following : **8**
- (1) What is the difference between Antiseptic and Disinfectant ? **(1)**
 - (2) What is full form of HEPA ? **(1)**
 - (3) Define undefined media. **(1)**
 - (4) What is Oligodynamic action ? **(1)**
 - (5) What is Diauxic growth ? **(1)**
 - (6) Define Haloduric bacteria. **(1)**
 - (7) Name any two methods used for cultivation of anaerobic bacteria. **(1)**
 - (8) Give one example of a Thermophilic bacterium. **(1)**
 - (9) What is the difference between an Antibiotic & a Drug ? **(1)**
 - (10) Name the vaccine used against Tuberculosis. **(1)**
 - (11) List any one drug used in the treatment of Typhoid. **(1)**
 - (12) Give two additional or other uses of Antibiotics. **(1)**
 - (13) Define Fermentation. **(1)**
 - (14) Give any two advantages of Packed Bed Reactor. **(1)**
 - (15) List any two important requirements for a microbial based industry. **(1)**
 - (16) Name the organisms used in Vinegar production. **(1)**
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