

Q-1 Attempt all following multiple choice question. (08)

- (1) Auxanography is a method used for detection of:
(a) Enzyme producer (b) Growth factor producer
(c) Antibiotic producer (d) None of them.
- (2) Organic acid producing organism can be detected by addition of :
(a) CuSO_4 (b) CaSO_4 (c) CaCO_3 (d) CH_3OH .
- (3) Cellwall of fungi can be removed by:
(a) Chitinase (b) Amylase (c) Lysozyme (d) Protease
- (4) Following is an Acridine dye:
(a) Proflavine (b) Acridine orange (c) Acriflavine (d) All of these.
- (5) Which electrodes are commonly used to measure dissolved oxygen?
(a) Galvanic (b) Polarographic (c) Oxygen (d) None of these
- (6) In fermentation process, closed system is associated with:
(a) Continuous fermentation (b) Batch fermentation
(c) Fed batch fermentation (d) All of these.
- (7) The methods available for sterilizing gases include:
(a) Filtration
(b) Gas scrubbing
(c) Radiation
(d) All of the above.
- (8) What is the holding time for batch sterilization?
(a) 20-40 min. (b) 10-30 min. (c) 20-60 min. (d) 30-60 min.



Q-2 Attempt the following. (Any five) (10)

- (1) Write down the characteristics of industrially important organisms.
- (2) Write in brief on crowded plate method.
- (3) Explain the role of inducers in fermentation medium.
- (4) Describe ideal characters of fermentation medium.
- (5) Write in brief on fed batch fermentation.
- (6) Draw a neatly labeled diagram of stirred tank reactor.
- (7) Describe various criteria for ideal inoculum.
- (8) What in brief on sampling.



Q-3 Explain significance of secondary screening.

(08)

OR

Q-3 Write in detail on range of fermentation processes.

(08)

Q-4 Describe various raw materials which can be used as carbon source.

(08)

OR

Q-4 Write a note on:

(A) Protoplast fusion.

(05)

(B) Gene technology.

(03)

Q-5 Describe in detail on continuous fermentation .

(08)

OR

Q-5 Describe monitoring and control of temperature and foam during fermentation.(08)

Q-6 Write in detail on mass transfer of oxygen and factors affecting it.

(08)

OR

Q-6 Explain in detail on scale down process.

(08)

*****-End-*****