

M.Sc. Microbiology Semester IV Examination
March/April-2017
Paper No. XIV Industrial Microbiology
Subject Code No. 3703

Time: - 2.5 Hours

Total Marks:-70

Instructions: (1) Attempt all questions
(2) Each question carries equal marks

Q1. Write on:

- (a) Cryopreservation
- (b) Secondary screening

OR

Q1. What are strain improvement strategies? Explain yeast strain improvement for ethanol production in detail.

Q2. Write on:

- (a) Adsorption as a method for cell immobilization
- (b) Photo bioreactor

OR

Q2. Write on characteristic features of a fermenter and discuss various components of a fermenter in detail.

Q3. Explain strategies of downstream processing with the help of flow diagram

OR

Q3. Write on:

- (a) Scale up and scale down
- (b) Cell disruption approaches

Q4. Explain:

- (a) Effect of process variables on microbial production of amylases
- (b) Downstream processing in streptomycin fermentation

OR

Q4. Explain the fermentative production of citric acid

Q5. Discuss biotransformation of steroids

OR

Q5. Write on:

- (a) Edible mushrooms
 - (b) Substrates for SCP production
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