

C.U.SHAH UNIVERSITY

Winter Examination-2018

Subject Name: Bioprocess Technology

Subject Code: 4SC04BPT1

Branch: B.Sc. (Microbiology)

Semester: 4

Date: 31/10/2018

Time: 10:30 To 01:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the following questions: (14)

- a) Define strain.
- b) Define intercalating agents.
- c) Define buffers.
- d) Define trace element.
- e) Expand SCP.
- f) Define pH.
- g) Define sedimentation rate.
- h) Write the name of any two organic acid.
- i) Write the scientific name of Vitamin B12.....
- j) Define sterilization.
- k) Define antifoam agents.
- l) Define mutagen.
- m) Define Enzyme.
- n) Define reverse osmosis.

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- a) Briefly different types of impeller. (7)
- b) Explain the production and purification of penicillin. (7)

Q-3 Attempt all questions (14)

- a) Write a note on DNA mutating agent. (7)
- b) Explain the mode of operation of batch and fed batch fermentation. (7)

Q-4 Attempt all questions (14)

- a) Write a note on mechanical and hydrodynamic fermenters. (7)
- b) Differentiate between upstream and downstream processing. (7)



