

S.Y.B.SC. SEM – IV (CBCS - 2016 Course) : WINTER - 2018
SUBJECT: MICROBIOLOGY: APPLIED MICROBIOLOGY

Day : Friday
Date : 19/10/2018

W-2018-0729

Time: 03.00 P.M. To 06.00 P.M
Max. Marks: 60.

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate full marks.
 - 3) Draw neat labeled diagrams **WHEREVER** necessary.
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Q.1 Attempt any **TWO** of the following: (12)

- a) Give the importance of bacterial diseases transmitted via water.
- b) How is the inoculum built up for a fermentation process?
- c) What is primary screening? Explain with examples.

Q.2 Attempt any **TWO** of the following: (12)

- a) Write in short on screening for fermentation media.
- b) Describe and give the significance of presumptive test.
- c) Draw a well labeled flow sheet of Penicillin fermentation.

Q.3 Attempt any **TWO** of the following: (12)

- a) Describe in short the IMViC tests as used to differentiate between coli and enterobacter group.
- b) Describe in detail activated sludge process.
- c) Describe dual fermentation with suitable examples.

Q.4 Attempt any **THREE** of the following: (12)

- a) How is the fermentor and its parts sterilized?
- b) How is disinfection achieved by chlorination?
- c) Give the composition of media as used in streptomycin fermentation.
- d) What is MF? Give its use in determining water quality.

Q.5 Explain/ Define/ Comment on/ Draw a well labeled diagram of (Any **Four**) (12)

- a) Protozoal diseases transmitted via water
- b) Slow sand filter
- c) Potable water
- d) COD
- e) Precursors in fermentation

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