

S.Y.B.SC. SEM – IV (CBCS - 2016 Course) : SUMMER - 2019
SUBJECT: MICROBIOLOGY: APPLIED MICROBIOLOGY

Day : **Saturday**
Date : **20/04/2019**

S-2019-0847

Time: 11.00 A.M. To 02.00 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) Describe the bacterial diseases transmitted via water. Give the causative agents.
- b) Give the importance and uses of antifoam agents.
- c) What is secondary screening? Explain with examples.

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

- a) Write in short on vessels used for fermentation.
- b) Describe and give the significance of confirmed test.
- c) Draw a well labeled flow sheet of streptomycin fermentation.

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

- a) Describe the process of anaerobic sludge digestion.
- b) Describe in detail trickling filter process.
- c) Describe multiple fermentations with suitable examples.

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

- a) How is the control of contamination in fermentation achieved?
- b) Give the use of ozone in disinfection of water.
- c) Describe the process of recovery of Penicillin from the fermented broth.
- d) What is MPN? Describe its procedure and significance.

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

- a) Viral disease transmitted via water
- b) Rapid sand filter
- c) Composition of domestic waste
- d) Primary waste water treatment
- e) Structure of streptomycin

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