

Total no. of printed pages= 02

(Sem-6/CBCS)BOT

2023

BOTANY

(Honors)

Paper Code: BOT-HE-6016

(Industrial and Environmental Microbiology)

Full Marks: 30

Time: 1 ½ Hours

1. Answer the following questions: 1X4=4

- (a) Who is considered as the father of Microbiology.
- (b) Name the bacterium that causes spoilage of canned food.
- (c) Who discovered bioreactor.
- (d) Which microorganisms are used in commercial production of acetic acid.

2. Answer the following questions (*any three*) 2X3=6

- (a) Name the first antibiotic and the microbe from which it was obtained.
- (b) Role of microorganisms in decomposition.
- (c) Ultrafiltration.
- (d) What is flocculation.

3. Write briefly on the following: (*any two*) 5X2=10

- (a) Write the difference between submerged and solid state fermentation.
- (b) Write briefly about the production and estimation of an enzyme.
- (c) Write the career options in micvrobiolgy.

4. Answer the following questions (*any one*) 10

- (a) What is a bioreactor. Write down its principle, parts of the bioreactor and their function.
- (b) What is downstream processing? Write filtration, solvent extraction and precipitation processes of a fermented target product.

