

**[11]****SARDAR PATEL UNIVERSITY****Bachelor of Science (Semester-V) Examination October-2025.****US05MIMIC03: Introduction to Industrial Microbiology.****Date: 08/10/2025 (Wednesday)****Time: 10:00 AM to 11:30 AM****Total: 25 Marks****Q-1 Select the correct answer for each question from the option given below. [05]**

1. Which of the following is a primary product of a primary metabolite?  
(a) Antibiotic (c) Steroids  
(b) Ethanol (d) Toxin
2. \_\_\_\_\_ important for the industrial production of vinegar for the conversion of ethanol to acetic acid?  
(a) Yeast (c) Genetically modified *E.coli*  
(b) Lactobacillus bacteria (d) Acetobacter bacteria
3. Who demonstrated penicillin's effectiveness as a chemotherapeutic agent?  
(a) Alexander Fleming (c) Howard Florey  
(b) Ernst Chain (d) Both b and c
4. Which of the following technique used for the screen out growth factors producing microorganisms from soil?  
(a) Crowded plate (c) pH indicator  
(b) Enrichment (d) Auxanography
5. Among the following options, which one is not a downstream process?  
(a) Chromatography (c) Sterilization  
(b) Filtration (d) Centrifugation

**Q-2 Explain the major classes of products and processes in industrial microbiology. [10]****OR****Q-2 Write a short note on the industrial use of bacteria for amino acid production. [10]****Q-3 Write a short note on Industrial uses of molds;**

- (a) Citric acid Production, [06]  
(b) Enzyme Production. [04]

**OR****Q-3 Define screening and briefly explain the primary screening for organic acid-producing and amylase-producing microorganisms. [10]**

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