

- (e) Describe bacterial SCP 4
- (f) Explain active dry yeast. 4
5. Explain the following :
- (a) Classification of cheese 4
- (b) Proteolytic and lipolytic microbes in milk 4
- (c) Grades of milk 4

OR

- (d) Testing of milk pasteurization 4
- (e) High temperature short time pasteurization 4
- (f) Composition and types of milk 4
6. Describe in detail food poisoning. 12

OR

- Describe in detail chemical preservation of foods. 12
7. Discuss in detail EMP pathway. 12

OR

- Describe in detail major classes of enzymes. 12

B.Sc. (Part-III) Semester-VI Examination

6S : MICROBIOLOGY

**(Industrial Fermentations, Food &
Microbiology & Metabolism)**

Time—Three Hours]

[Maximum Marks—80

- N.B. :—** (1) All questions are compulsory.
(2) Draw neat and labelled diagrams wherever necessary.

1. (A) Fill in the blanks .

- (i) Fring's process is used for industrial production of _____ .
- (ii) In low temperature holding method milk is pasteurized at _____ °C temperature.
- (iii) The substance on which enzyme acts is called as _____ .
- (iv) _____ is used as a precursor in penicillin production. 2

(B) Choose the correct option :

- (i) Single cell protein is :
- (a) Protein extracted from single cell of micro organism.
- (b) Biomass of a microorganism with high protein content.

- (c) Protein prepared from amino acids.
- (d) Biomass of a microorganism with high protein and nucleic acid content.
- (ii) Main sugar present in cow milk is :
 - (a) Glucose
 - (b) Sucrose
 - (c) Lactose
 - (d) Maltose
- (iii) Holoenzyme is formed by combining apoenzyme with :
 - (a) Coenzyme
 - (b) Isoenzyme
 - (c) Allosteric enzyme
 - (d) Immobilized enzyme

(iv) Catabolism means :

- (a) Synthesis reactions
- (b) Isomerization reactions
- (c) Breakdown reactions
- (d) Ligation reactions

2

(C) Answer the following in **one** sentence :

- (i) Skimmed milk
- (ii) Molasses
- (iii) Mastitis
- (iv) Hops

4

2. Differentiate between :

- (a) Batch and continuous fermentation 4
- (b) Surface and submerged fermentation 4
- (c) Aerobic and anaerobic fermentation. 4

OR

Explain the following :

- (d) Antifoam agents 4
- (e) Screening of production strain 4
- (f) Classes of industrial microorganisms 4

3. Explain the following :

- (a) Medium components of beer production 4
- (b) Microorganisms and inoculum for acetone butanol production 4
- (c) Fring's generator 4

OR

- (d) Fermentation conditions for alcohol production. 4
- (e) Red table and white table wine. 4
- (f) Processing of grapes for wine production. 4

- 4. (a) Explain microorganisms for penicillin production 4
- (b) Describe recovery of bakers yeast 4
- (c) Explain production of fungal amylase 4

OR

- (d) Explain recovery of penicillin 4