

- (c) What is pasteurization ? Describe in brief Low Temperature Holding (LTH) method of pasteurization. 4

OR

- (d) Define yoghurt and give its fermenting microflora. 4
- (e) Describe phosphatase enzyme test. 4
- (f) Describe one method for production of milk powder. 4
6. (a) Define sauerkraut and give its fermenting microflora. 4
- (b) Explain any two sources of contamination of foods. 4
- (c) Describe production of Idli. 4
- OR
- (d) What is Salmonellosis ? 4
- (e) Staphylococci food poisoning. 4
- (f) Describe botulism. 4
7. Describe in detail TCA cycle. 12

OR

What are enzymes ? Give detailed classification of enzymes. 12

B.Sc. (Part-III) Semester-VI Examination
6S : MICROBIOLOGY
(Industrial Fermentations Food Microbiology and Metabolism)

Time : Three Hours]

[Maximum Marks : 80

Note :- (i) ALL questions are compulsory.
 (ii) Draw neat and labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) Molasses is a byproduct of _____ industry.
- (ii) Cheddar cheese is _____ type of cheese.
- (iii) Amylase enzyme can hydrolyze _____.
- (iv) Preservation of food by radiation is known as _____ 2

(B) Choose the correct options :

- (i) Which enzyme is used to determine efficiency of pasteurization ?
- (a) Catalase
- (b) Amylase
- (c) Coagulase
- (d) Phosphatase enzyme

(ii) Large vessel in which fermentation is carried out is known as :

- (a) Impeller
- (b) Inoculation tank
- (c) Fermentor
- (d) None of these

(iii) Net gain of ATP in Kreb's cycle is :

- (a) 20 ATP
- (b) 24 ATP
- (c) 22 ATP
- (d) 26 ATP

(iv) Antifoam agent is destroying :

- (a) Foam
- (b) Acid
- (c) Alkali
- (d) None of these.

2

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

- (a) Describe crowded plate technique.
- (b) Define fermentation.
- (c) What is food infection ?
- (d) Define cheese.

4

2. (a) Describe inoculum build up. 4
- (b) Give difference between aerobic and anaerobic fermentation. 4
- (c) What is molasses ? Give its uses. 4

OR

- (d) What is waste sulfite liquor ? Give its uses. 4
- (e) Describe Auxanography technique. 4
- (f) Give difference between batch and continuous fermentation. 4

3. What is wine ? Describe in detail industrial production of red wine. 12

OR

What is vinegar ? Describe in detail production of vinegar by Fring's generator process. 12

4. (a) Draw flowsheet diagram for SCP production. 4
- (b) Describe commercial production of bacterial amylase. 4
- (c) Explain in brief production of baker's yeast. 4

OR

- (d) Draw flowsheet diagram of vitamin B₁₂ production. 4
- (e) Describe in brief fermentation conditions for production of penicillin. 4
- (f) Write uses of amylase. 4

5. (a) Define cheese and give its classification. 4
- (b) Define milk and enlist any four diseases transmitted by milk. 4