

2021

MICROBIOLOGY — GENERAL

Paper : SEC-B-2

(Unit 1 to unit 6)

(Food Fermentation Techniques)

Full Marks : 80

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Question Nos. (1) and (2) are compulsory, and answer *any four* from the rest.

- 1. Answer *any ten* questions:** 2×10
- (a) Define food fermentation.
 - (b) What is rennet? State its use.
 - (c) State the difference between prebiotic and probiotic food.
 - (d) What is the significance of salting in cheese making?
 - (e) Name the ingredients used in the preparation of bread.
 - (f) State two disadvantages of consuming soyasauce.
 - (g) Name the fermented meat products commonly known.
 - (h) What do you mean by buttermilk?
 - (i) What are starter cultures?
 - (j) Define 'Koji', stating its usage.
 - (k) What is LAB?
 - (l) How will you start for Sauerkraut preparation?
 - (m) 'Idli and Dosa' are both grain based fermented foods. How will you differentiate the two?
 - (n) State one major difference between homo and heterolactic fermentation.
 - (o) Write down the health benefits of consuming yogurt.
- 2. Write short notes on the following (*any four*):** 5×4
- (a) Health benefits of Dosa
 - (b) Probiotics
 - (c) Production of sausage (flow chart)
 - (d) Buttermilk production
 - (e) Homolactic fermentation.

Please Turn Over

3. (a) What are the factors that determine cheese quality?
(b) Name a mould important in cheese making.
(c) What is the role of mould in cheese making?
(d) Draw an outline to demonstrate the process of cheese making. 2+1+3+4
4. (a) What is meant by 'Ripening of Meat'?
(b) Name some fermented fish product.
(c) Describe the fermentation process of fish without drying.
(d) Name a pathogen that grows in salted fish. 3+2+4+1
5. Define the following: 2×5
(a) Kneading
(b) Cheese ripening
(c) Saurdaugh bread
(d) Sauerkraut
(e) Pickles
6. (a) What do you understand by the term 'probiotics'?
(b) Why are probiotics useful in maintaining good intestinal balance?
(c) Name two probiotic foods.
(d) State the health benefits of the food mentioned by you in (c). 2+3+2+3
7. (a) What are the ingredients used in the production of Sauerkraut?
(b) What are the spices used in the fermentation of meat?
(c) Outline the steps in the preparation of 'Idli'.
(d) Name one volatile compound present in fermented meat products. 3+2+4+1
8. (a) What is the difference between 'Dahi' and 'Yogurt'?
(b) What are the different types of yogurt available in the market?
(c) Explain the different stages of curd production. 3+3+4
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