

- Q.27 Compare and contrast the production processes of beer and wine.
- Q.28 Describe the production technology of yogurt, including the microorganisms involved and the fermentation process.
- Q.29 Explain the steps involved in the production of sauerkraut and its nutritional benefits?
- Q.30 Discuss the sources of single-cell protein and their advantages in terms of nutritive value.
- Q.31 Explain the production process of single-cell protein, including the role of microorganisms.
- Q.32 Describe the concept of production of vitamins and amino acids through fermentation.
- Q.33 Provide examples of vitamins produced through fermentation and the microorganisms used for their production.
- Q.34 Write down the production technology of yogurt and its health benefits.
- Q.35 Discuss the potential role of fermentation in addressing global food security and malnutrition challenges.

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Explain the procedures and importance of maintaining pure cultures in fermentation processes, highlighting the challenges and solutions in maintaining the purity of microbial cultures.
- Q.37 Describe the basic configuration of a fermenter and discuss in detail the functions and significance of agitator/impellers, sparger and baffles in the fermentation process.
- Q.38 Compare the production processes of beer and wine, including raw materials, fermentation conditions, and final product characteristics. Discuss the factors influencing the unique attributes of each product

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Branch : Food Tech.

Sub. Food Fermentation Technology

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 What is food fermentation?
- Cooking food with heat
 - Preserving food with chemicals
 - Converting carbohydrates into alcohol or organic acids using microorganisms
 - Freezing food for long-term storage
- Q.2 Which of the is NOT an advantages of food fermentation?
- Extended shelf life
 - Enhanced flavour
 - Reduced nutritional value
 - Lower cost
- Q.3 Which type of fermentation produces alcohol as a primary product?
- Alcoholic fermentation
 - Lactic acid fermentation
 - Acetic acid fermentation
 - Butyric acid fermentation
- Q.4 What are substrates in the context of fermentation?
- Microorganism
 - Ingredients used in fermentation
 - End products
 - Temperature controllers

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- Q.5 What is the primary function of agitator/impellers in a fermentor?
- Introducing air
 - Mixing the fermentation broth
 - Measuring pH levels
 - Controlling temperature
- Q.6 Which component of a fermentor is responsible for introducing air or other gases?
- Agitator/impellers
 - Baffles
 - Sparger
 - Process control
- Q.7 What is the primary ingredient in the production of beer?
- Grapes
 - Barley
 - Apples
 - Rice
- Q.8 Which of the following is NOT a beverage produced through fermentation?
- Whiskey
 - Rum
 - Wine
 - Orange juice
- Q.9 Which microorganism is primarily responsible for curd production?
- Yeast
 - Lactic acid bacteria
 - Molds
 - Saccharomyces cerevisiae*
- Q.10 What is the primary microorganism involved in the fermentation of idli and dosa batter?
- Yeast
 - Lactic acid bacteria
 - Molds
 - Saccharomyces cerevisiae*

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Which microorganism is primarily responsible for curd production?
- Q.12 What is the primary microorganism involved in the fermentation of idli and dosa batter?
- Q.13 What are the sources of single-cell protein?
- Q.14 Name one advantage of single-cell protein production.
- Q.15 Why are vitamins and amino acids produced through fermentation?
- Q.16 Name one microorganism commonly used in the production of vitamins through fermentation.
- Q.17 What is the primary purpose of fermenting food products?
- Q.18 Which microorganism is responsible for the fermentation process in making sauerkraut?
- Q.19 What are the advantages of single-cell protein production?
- Q.20 In the context of fermentation, what is the primary role of fungi in the production of vitamins?

SECTION-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Define fermentation and explain its importance in food production.
- Q.22 Describe the difference between alcoholic fermentation and lactic acid fermentation.
- Q.23 Explain the significance of maintaining pure cultures in fermentation processes.
- Q.24 Provide a detailed description of the basic configuration of a fermenter.
- Q.25 Discuss the functions of agitator/impellers, sparge, and baffles in a fermenter.
- Q.26 Explain the steps involved in the production of whiskey through fermentation.