



Date: 30-11-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART A

Answer ALL the Questions

I Choose the correct answer (5 x 1 = 5)

1 Which of the following combination of processing and preservation techniques works best for smoked products?

- a) Salt and acidification b) Heat and solid content
c) Heat, salt content d) Heat, salt, minimal moisture content

2 Pasteurization is the process of heating milk

- a) above 121°C b) above boiling point
c) below boiling point d) above 150°C

3 The micro-organism involved in alcoholic fermentation is

- a) *Azetobacter* b) *Lactobacillus*
c) *Streptococcus* d) *Saccharomyces cerevisiae*

4 The major carbohydrate majorly present in rice grain is

- a) Amylose b) Starch c) Amylopectin d) Glucose

5 Any domesticated bird is referred to as

- a) Turkey b) Chicken c) Duck d) Poultry

II State whether the following are true or false. (5 x 1 = 5)

6 Multi-target preservation helps to target many factors such as pH, temperature etc and hence helps fight all types of microbes.

7 Putrefaction is the process of anaerobic degradation of proteinaceous materials.

8 Enzymes are vitamins that act as catalyst.

9 Cereals lack in the essential amino acid lysine.

10 During the deterioration of fish TMAO is converted into methylene.

III Complete the following (5 x 1 = 5)

11 Food irradiation extends the _____ of food.

12 _____ is used in food preservation by cryogenic systems.

13 The mechanism of action of enzymes in fermentation is _____

14 Bleaching of fats and oils is done using _____

15 Proteolytic enzymes used in the tenderization of meat are _____

IV Answer the following within 50 words

(5 x 1 = 5)

- 16 Define Rittinger's law
- 17 What is Filter aid filtration?
- 18 Give the advantage of hurdle technology.
- 19 Define hydrogenation of oils.
- 20 Define homogenization of milk.

PART B

Answer the following each within 500 words.

(5 x 8 = 40 Marks)

Draw diagrams wherever necessary

- 21 (a) Give an account of liquid – gas separation in food industry.

OR

(b) What is membrane filtration? Comment on its application in the food industry.

- 22 a) Write a short note on the steps in retort process.

OR

b) Comment on the different dryers used in food processing

- 23 a) Comment on the role of lactases and proteases in food preservation.

OR

b) Write in detail the biochemical pathways involved in lactic acid fermentation.

- 24 a) Discuss in detail the effect of cooking on rice starch.

OR

b) Explain the chemical composition of fruits and vegetables.

- 25 a) Explain in detail the perishability factors of fish

OR

b) Discuss in detail about the composition of egg.

PART C

Answer any TWO of the following, each within 1500 words.

(2 x 20 = 40 Marks)

Draw diagrams wherever necessary.

- 26 Explain in detail the different equipments used in size reduction in food processing.
- 27 Write in detail on the principles of HACCP. Add a note on the functioning of HACCP team.
- 28 Discuss in detail the manufacturing of chocolate from cocoa beans.
- 29 Explain in detail the changes related to rigor mortis in animal tissue with a flow diagram.

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