

AP-482

B.Sc. (Part-II) Semester-IV Examination
4S : FOOD SCIENCE
(Food Preservation and Quality Control)

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory.

(2) Illustrate your answer with well labelled diagrams.

1. (A) Fill in the blanks :

(i) Size and Shape of food are the _____ factors of quality of foods. (Appearance/Textural)

(ii) Keeping out microorganisms for food preservation is termed as _____.

(Incubation/asepsis)

(iii) _____ is the process applied to fruit and vegetable preservation.

(Canning/ Sensory evaluation)

(iv) Micro Waves are _____ Waves of radiant energy used in Food for its heating properties.

(Electromagnetic/ Infrared)

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(B) Match the pairs :

- | | | |
|--------------------------------------|-----------------------------|---|
| (1) PFA Act | Cost of the material | |
| (2) Selection of packaging materials | Pathogenic microorganisms | |
| (3) Pasteurization | Microbacterium Tuberculosis | |
| (4) Disease producing | 1954 microorganism | 2 |

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

- (i) Define the term 'HACCP'.
- (ii) Name the cleaning agents.
- (iii) Explain one difference between drying and dehydration.
- (iv) What is Sun Drying ? 4

2. (A) Define food spoilage. What are causes of food Spoilage ? 4

(B) Explain the changes occur in milk when it is spoiled. 4

(C) What are the factors affecting Food Spoilage ? 4

OR

7. (A) What are the sources of Food Contamination ? 4

(B) Define the following terms :

- (i) Chelating agents.
- (ii) Surfactants. 4

(C) What are biodegradable films ? Explain its importance. 4

OR

(P) Classify flexible packaging films. Give its limitations. 4

(Q) What are the mandatory labelling requirements of packed foods ? Explain in short. 4

(R) What are the types of sanitizer used in food industry ? 4

- (P) Explain textural and flavour factors that can contribute to quality of foods. 4
- (Q) Classify food spoilage. Explain microbial spoilage. 4
- (R) Explain quality of food. 4
3. What do you understand by food preservation ? Describe two methods of food preservation by low temperature. 12

OR

- What are the changes that occur during the cold treatment to food ? Explain Freeze drying of foods. 12
4. Define thermal death time (TDT). Give its importance in preservation. Explain canning process. 12

OR

- What are the commercial drying equipments used for drying ? Discuss the effect of drying on food properties. 12
5. (A) Discuss the advantages and disadvantages of microwave heating of foods. 4

- (B) Explain in brief the process of concentration by reverse osmosis. 4
- (C) Explain preservation by concentration using heat. 4

OR

- (P) Differentiate between Class I and Class II preservatives. Give examples of each. 4
- (Q) Explain the action of Class II preservative. What is 'Salting' ? 4
- (R) Explain Pickelling and Smoking. 4
6. (A) Define Food Adulteration. What are its causes ? 4
- (B) Discuss the methods for identifying the adulteration in any five materials. 4
- (C) What are food laws ? Give the list. 4

OR

- (P) Discuss MMPO, FPO in brief. 4
- (Q) What are the principles of HACCP System ? 4
- (R) Discuss Agmark and CPA. 4