

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

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) **ALL** questions are compulsory.

(2) Draw a neat diagram if necessary.

1. (A) Fill in the blanks : 2
- (i) The Chemical name of vinegar is _____.
 - (ii) Benzoic acid is a Class _____ Preservative.
 - (iii) The removal of water due to action of salt/sugar is known as _____.
 - (iv) Caustic soda is a name of _____ cleaning agent.
- (B) Match the pairs by selecting the correct alternative : 2
- | | |
|---------------------------------|----------------------------------|
| (i) ECA | (a) System of quality management |
| (ii) HACCP | (b) Artificial Sweetener |
| (iii) Saccharin | (c) Packaging Material |
| (iv) Polyethylene terephthalate | (d) Act of Indian Government |
- (C) Answer in one sentence : 4
- (i) Which method of dehydration is used for preparation of Milk Powder ?
 - (ii) What is 'Gray', the term related to irradiation ?
 - (iii) Define quality.
 - (iv) Define blanching.
2. Give an account of Food Spoilage, types and causes and common spoilage in basic Food Stuffs. 12

ORWhat is quality ? Explain the factors contributing to the quality. 12

3. (A) Enlist the various methods of Food preservation. 4
- (B) What are the principles of Food Preservation ? Explain its importance. 4
- (C) Differentiate between Freezing and Refrigeration. 4

OR

- (P) Discuss the changes in Food during freezing. 4
- (Q) Explain the mechanism of preservation by low temperature with examples. 4
- (R) Explain freeze drying. 4

4. (A) Define drying. Explain the advantages and disadvantages of sun drying. 4
(B) Explain spray drying with flow diagram. 4
(C) What is sterilization ? Differentiate with pasteurization. 4

OR

- (P) What is pasteurization ? Give various methods. 4
(Q) Explain canning. 4
(R) Explain the effects of high temperature methods on food. 4
5. (A) Discuss the factors affecting the effectiveness of radiation. 4
(B) Explain the mechanism of preservation by salting & sugaring with examples. 4
(C) Explain smoking and acidification as a method of food preservation. 4

OR

- (P) Explain the working of microwave oven. 4
(Q) Explain Class I preservatives. 4
(R) Explain preservation by concentration. 4
6. (A) Explain the benefits of HACCP. 4
(B) What is ECA ? Explain the clause. 4
(C) What is Adulteration ? Give the laws of Prevention. 4

OR

- (P) Discuss the simple methods of detection of adulteration in milk and honey. 4
(Q) Give an account of Food Safety. 4
(R) Give the principles of HACCP. 4
7. Discuss the functions and classification of packaging. Discuss metal as a packaging material. 12

OR

Give an account of importance of Food labelling with the mandatory labeling. 12