

NATIONAL COUNCIL FOR HOTEL MANAGEMENT
AND CATERING TECHNOLOGY, NOIDA
ACADEMIC YEAR 2016-2017

COURSE : 2nd Semester of 3-year B.Sc. in H&HA
SUBJECT : Principles of Food Science
TIME ALLOWED : 03 Hours MAX. MARKS: 100

(Marks allotted to each question are given in brackets)

Q.1. The hotel industry uses the principles of food science in many of its operations. Explain how?

OR

Food Science is inter-related with various other field. Explain.

(10)

Q.2. What is the effect of cooking on the following foods (**any two**):

(a) Carbohydrates (b) Protein (c) Fats

(2x5=10)

Q.3. Name **five** examples of processed foods available in stores today. What are the benefits of food processing?

OR

Highlight the types of food processing techniques using heat and cold temperature.

(10)

Q.4. (a) Classify carbohydrates.

(b) Describe **any** five functions of carbohydrates in food preparation.

OR

How are the various colloids formed? Explain each one in brief.

(10)

Q.5. How does the process of enzymatic browning occur in foods and how can it be prevented?

(10)

Q.6. Discuss the functional properties of proteins (i.e. Viscosity, Foamability, Gelatin, Emulsification)

(10)

Q.7. Differentiate between the following (**any five**):

- (a) Gelatinization and Gelation
- (b) Brownian Movement and Tyndall effect.
- (c) Flavour in Tea and Wine.
- (d) Caramel and Dextrin
- (e) Food Microbiology and Food Technology
- (f) Marmalade and Marshmallow

(5x2=10)

Q.8. Write short notes on:

- (a) Commercial uses of fat
- (b) Autoxidation

(5+5=10)

Q.9. What are the requirements while conducting sensory evaluation?

OR

What are the refining techniques used for oils?

(10)

Q.10. **A** State whether True or False:

- (i) MAP stands for Modified Atmosphere Packaging
- (ii) Sensory evaluation produces the same result every time it is conducted.
- (iii) Lard is a type of plant fat.
- (iv) Gelatin is used while making puddings.
- (v) True solutions separate on standing.

B Give one word for (**any five**):

- (i) Mixture of 2 immiscible liquids _____.
- (ii) An example of a synthetic emulsifier _____.
- (iii) Person who innovates or discovers new products _____.
- (iv) Proteins that react as acids or bases are given the term _____.
- (v) Class of carbohydrate that do not dissolve in water _____.
- (vi) A flavour component in fish _____.

(5+5=10)
