

**CERTIFICATE PROGRAMME IN FOOD
SAFETY**

Term-End Examination

June, 2019

00654

BFN-002 : HAZARDS TO FOOD SAFETY

Time : 3 hours

Maximum Marks : 100

Note : Attempt any five questions. Question no. 1 is compulsory. All questions carry equal marks.

1. Explain briefly the following : 10×2=20
- (a) Adulteration
 - (b) Lathyrism
 - (c) OR-Potential
 - (d) Preservatives
 - (e) Shellfish poisoning
 - (f) Flavoring agents
 - (g) Aflatoxin
 - (h) Toxic alkaloids
 - (i) Gastroenteritis
 - (j) Leavening agents

2. (a) Classify various chemical hazards associated with food, giving examples. 10
- (b) How does temperature play an important role in controlling microbiological hazard ? Explain briefly. 10
3. (a) Explain bacterial growth curve with the help of a diagram. 10
- (b) Justify the following statements : $2 \times 5 = 10$
- (i) Anti-nutritional factors interfere with utilisation of nutrients by our body.
- (ii) Emergence of new foodborne pathogens is always a concern.
4. (a) What are Food Additives ? Explain their functions in the food industry. 10
- (b) List any five common adulterants found in foods. State the methods which can be used for detecting these adulterants. 10
5. (a) What is the impact of presence of heavy metals in foods on human health ? 12
- (b) How is the food handler critical to the safety of food ? Discuss. 8

6. (a) List the organism involved, foods implicated, routes of transmission, symptoms and preventive measures of the following disease outbreaks : $7\frac{1}{2}+7\frac{1}{2}$
- (i) Botulism
 - (ii) Hepatitis
- (b) State the significance of : $2\frac{1}{2}+2\frac{1}{2}=5$
- (i) Seafood toxins
 - (ii) Pesticide residues

7. Write short notes on any *four* of the following : $4 \times 5 = 20$
- (a) Enterotoxins
 - (b) Veterinary Drug Residues
 - (c) Plant Toxicants
 - (d) Norwalk Virus
 - (e) Water Activity
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