

**CERTIFICATE PROGRAMME IN FOOD  
SAFETY**

00214

**Term-End Examination**

**December, 2016**

**BFN-002 : HAZARDS TO FOOD SAFETY**

*Time : 3 hours*

*Maximum Marks : 100*

- Note :** (i) *Question No. 1 is compulsory.*  
(ii) *Attempt five questions in all.*  
(iii) *All questions carry equal marks.*

1. (a) Give one example for each of the following : 10
- (i) Mycotoxin
  - (ii) Antinutritional factors
  - (iii) Food borne virus
  - (iv) Water borne food pathogen
  - (v) Antioxidant
  - (vi) Food Intoxication
  - (vii) Adulterant in Milk
  - (viii) Plant toxicant
  - (ix) Pesticide residue
  - (x) Food color
- (b) Define the following : 10
- (i) Food Safety
  - (ii) GRAS
  - (iii) ADI
  - (iv) Food Additive
  - (v) Pesticide Residues

2. (a) Differentiate between Hazard and Risk. 5  
 (b) What are the different hazards associated with foods, explain giving examples. 15
3. Explain the role of the following with regards to food safety : 20  
 (a) Heavy metals  
 (b) Food additives  
 (c) Shell fish poison  
 (d) Mycotoxin
4. (a) Classify the microorganisms on the basis of their temperature relationships citing examples. 8  
 (b) Explain the role of hydrogen ion concentration, (pH), or potential and nutrient content in the growth of microorganisms. 12
5. (a) Explain the role of anti oxidants and preservatives in the food industry. 10  
 (b) Classify the food contaminants of natural origin. 3  
 (c) Briefly discuss the toxicants present in plant foods. 7
6. Explain the food borne disease caused by **any four** of the following organisms : 5+5+5+5  
 (a) Hepatitis Virus  
 (b) EEEEC  
 (c) Salmonella sp.  
 (d) Listeria sp.  
 (e) Bacillus sp.

7. Write short notes on :

20

- (a) Metallic contaminants
  - (b) Methods for detecting adulterants in spices and condiments
  - (c) Health hazards of pesticides
  - (d) Antinutritional factors in foods
  - (e) Gastroenteritis
-