

**CERTIFICATE PROGRAMME IN FOOD
SAFETY**

Term-End Examination

June, 2017

BFN-002 : HAZARDS TO FOOD SAFETY

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt five questions in all.

(ii) Q. No. 1 is compulsory.

(iii) All parts of a question must be attempted together.

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1. (a) Give an example for each of the following : 10
- (i) Food borne virus
 - (ii) Osmophilic yeast
 - (iii) Mycotoxin
 - (iv) Sea food toxin
 - (v) Food color
 - (vi) Anti oxidant
 - (vii) Gram Positive cocci
 - (viii) Causative organism of Mad Cow Disease
 - (ix) Pathogenic protozoan
 - (x) Mesophilic micro-organism
- (b) Differentiate between Food Infection and Food Intoxication giving two examples of each. 10
2. (a) Draw a bacterial growth curve and explain the various phase of growth of micro organisms. 10

- (b) Explain the four most critical factors which affect the microbial growth 10
3. (a) What are the various types of hazards associated with food ? 10
- (b) Describe the various types of micro organisms associated with food as microbial hazards. 10
4. State the significance of following in relation to food safety : 5+5+5+5
- (a) Sea Food Toxins
- (b) Pesticide Residues
- (c) Heavy Metals
- (d) Food Additives
5. (a) What is a Food contaminant ? 3
- (b) What are the various sources of Food contamination ? 7
- (c) What are the intentionally added food adulterants ? List the method of their detection in milk. 10
6. (a) What are Water and Food associated viruses ? How are they transmitted ? 10
- (b) What is the mode of transmission, symptoms and preventive measures of Shigellosis ? 10
7. Write short notes on **any four** of the following :
- (a) Salmonellosis 5+5+5+5
- (b) Emerging food borne pathogens
- (c) Food Additives
- (d) Mycotoxicosis
- (e) Anti nutritional factors in plants
- (f) Enterotoxins