

**CERTIFICATE PROGRAMME IN FOOD
SAFETY**

Term-End Examination

June, 2015

BFN-002 : HAZARDS TO FOOD SAFETY

Time : 3 hours

Maximum Marks : 100

Note : Answer five questions in all. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Define/Explain the following in 2-3 sentences each : 2x7=14
- (i) Goitrogens
 - (ii) Veterinary drug residues
 - (iii) Mycotoxins
 - (iv) Osmophilic yeasts
 - (v) Food handler
 - (vi) Helicobacter pylori
 - (vii) Bird Flu
- (b) Fill in the blanks : 6
- (i) Toxin produced by *Aspergillus flavus* is called _____.
 - (ii) Amoebiasis is caused by the protozoan _____.
 - (iii) Bacteria which grow best at temperatures above 45°C are called _____.
 - (iv) _____ is used as an anti-foaming agent in fats meant for deep-fat frying.

- (v) A substance which has the ability to cause genetic changes is called a _____.
- (vi) The most common adulterant in black pepper is _____ seeds.
2. (a) List the precautions we need to take while handling food so that it does not become contaminated. 5
- (b) What are food additives ? Why are food additives intentionally added to foods ? 2+8=10
- (c) Discuss some safety issues associated with the use of colours in foods. 5
3. (a) Describe the various factors influencing microbial growth in a food. 12
- (b) What are pesticide residues ? What are some of the adverse health effects of pesticides ? 2+6
4. (a) Describe the symptoms of infection and mode of transmission of Enteropathogenic E coli and Listeria monocytogenes. 5+5
- (b) What is food adulteration ? List four commonly adulterated foods stating the types of adulterants that are likely to be found in them. Give the harmful effects of adulteration. 2+8
5. (a) Describe in detail the sources, health effects and measures for reduction of any four antinutritional factors in foods. 12
- (b) What are water and food associated viruses ? How are they transmitted ? 8

6. (a) Describe health hazards of heavy metal exposure giving suitable examples to illustrate your answer. 10
- (b) Define food hazards. Describe the different types of microbiological hazards that may be present in food. 10
7. (a) Describe the harmful effects of consuming Kesari dal and how these can be prevented? 8
- (b) Describe some household measures to reduce exposure to contaminants present in foods. 5
- (c) Which micro-organism causes salmonellosis? What is the mode of transmission and the symptoms of this disease? 1+3+3
8. Write short notes on any four of the following: 5+5+5+5
- (a) Botulism
- (b) Norwalk virus
- (c) Leavening agents
- (d) Physical tests for common adulterants in food
- (e) Shellfish toxicants
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