

**2012**

**M.Sc.**

**3rd Semester Examination**

**NUTRITION & DIETETICS**

**PAPER—NUD-304**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Module—I (Marks : 20)**

**( Food Toxicology )**

1. Answer any five questions of the following : 1×5
- (a) What is synergetic effect ?
  - (b) Write the full name of DDT.
  - (c) Write on the specific names of two transgenic plants.
  - (d) What is teratogen ?
  - (e) What is LD<sub>50</sub> ?
  - (f) What is unani talc ?

- (g) Write the name of two food adulterants.
- (h) Write the name of aflatoxin producing fungi.
2. (a) How Amatoxin poisoning occurs ?
- (b) How do you detect amatoxin poisoning chemically ?
- (c) Mention about few nutritional aspects of management of anatoxin poisoning.
- (d) What are the causes of illness even anybody consumes edible mushroom ? 1+3+2+2

Or

- (a) What do you mean by antagonistic and agonistic effect ?
- (b) Discuss about different ways of food intoxication briefly.
- (c) How do you prevent cross contamination of food ? 2+4+2
3. (a) Prawn develops immunotoxicity in some people — mention the basic mechanism with diagrammatic representation.
- (b) Which types of food additives are used to regulate  $a_w$  and pH ? 5+2

Or

- (a) Write the effect of genotoxin on reproductive toxicity at premenopausal stage.
- (d) "Food security is ensured by food biotechnology" — Justify the statement.
- (c) What do you mean by safety aspects of transgenic food ? 3+2+2

**Module—II (Marks : 20)**  
**( Food Microbiology )**

4. Answer any *five* questions of the following : 5×1
- (a) Write the examples of lyophilized foods.
  - (b) Write the name of two thermophilic bacteria.
  - (c) What is Psychrophilic ?
  - (d) What is the basic component of the cell wall of a bacteria ?
  - (e) Write the name of fermented animal product component in pizza.
  - (f) What is the use of streak plate method ?
  - (g) What is exponential phase of bacterial cell cycle ?
  - (h) Write the name of a microorganism is required to prepare bread.
5. (a) Discuss about the extrinsic factors for bacterial growth cycle.
- (b) What types of standard microbiological practices would be followed during the cultivation of microorganism. 4+4

Or

- (a) What are the benefits of fermented food ?
- (b) How do you prepare Yoghurt by fermentation ?
- (c) Why Co-aggulum formation occurs in yoghurt ?
- (d) What is the use of McCanky media ?

$2+2\frac{1}{2}+2\frac{1}{2}+1$

6. (a) State the role of q-PCR for the detection of microorganism with special reference to DNA blot fingerprinting mention the steps of DNA amplification from RNA.
- (b) What are the enzymes used in q-PCR and PCR.

5+2

Or.

Write short notes :

$3\frac{1}{2}+3\frac{1}{2}$

- (a) Immuno electrophoresis ;
  - (b) Immunofluorescence technique.
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