

2011

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)

(Research Methodology & Computer Applications)

1. Answer any five questions of the following : 1×5

(a) What is ED ?

(b) What is NOEL ?

(Turn Over)

- (c) How do you calculate TD_{50} ?
- (d) Which micro-organism commonly associated with food hazards of rice?
- (e) What do you mean by junk food?
- (f) Write the justification of ~~BE~~ Brinjal.
- (g) What is α -amitin?
- (h) What do you mean by transgenic plant?
2. (a) Elaborate the difference between additive and synergetic effect with example.
- (b) Discuss the merits and demerits of GM food.
- (c) Write the fundamental techniques of the preparation of any one transgenic plant. 2+3+3

Or

- (a) Write the full name of a compound of pesticidal origin with xenoestrogenic nature.
- (b) Define xenoestrogen.
- (c) What type of preneoplastic change occurs in response

to food carcinogen ingestion ?

- (d) Write the name of the causative factor of 'Chinese restaurant syndrome' and mention few beneficial roles of this food additive for human health in brief.

1+2+2+(1+2)

3. (a) What is the significance of arsenic load determination in food toxicology ?
- (b) How do you determine total arsenic load after food & water consumption ?
- (c) Discuss about aflatoxin mediated major health hazards.

2+2+3

Or

- (a) What is the difference between transition and transversion ?
- (d) Write the mode of action of toxicants for the induction of neurotoxicity.
- (c) Write the measures taken for food safety in case of pregnant mother.

2+3+2

Module—II (Marks : 20)

(Biostatistics)

4. Answer any *five* questions of the following :
- (a) Write the name of two fermented vegetable products.
 - (b) What do you mean by psychrophiles?
 - (c) Write the name of two food spoiling microorganisms.
 - (d) What is heterofermentation?
 - (e) What is the full form of RT-PCR?
 - (f) Write the name of any one rapid method for detection of micro-organism.
 - (g) What is lyophilization?
 - (h) What do you mean by lag phase of bacterial growth cycle?
5. (a) Describe any one rapid immunological technique for the detection of micro-organism.

(b) How qualitative and quantitative aspect of immunological detection can be performed by enzyme linked immunological method ?

(c) Why real-time PCR is preferred over traditional PCR ?

2+4+2

Or

(a) Write the process in brief for isolation of micro-organism.

(b) Write any two intrinsic factors for bacterial growth cycle.

(c) Write the use of differential media in microbiology.

3+3+2

6. (a) What are the fermented milk products ?

(b) Mention their beneficial effect.

(c) Why lactobacillus is important in food fermentation ?

3+2+2

Or

- (a) "Nutrient enrichment of the wheat flour or rice by fermentation for Idli and Dandari roti preparation is an important process." Justify the statement.
- (b) Write the application of SCP (Single cell protein) fermentation for nutrient enrichment of the food.
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