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RNLKWC/P.G./CBCS/IVS/403/22

2022

Food Science and Nutrition

[P.G.]

(M.Sc. Fourth Semester End Examination-2022)

PAPER-403

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

Group-A

1. Answer any five questions from the following: 5x2= 10
- Define food fortification.
 - Write the names of any two GM food.
 - State any two needs of food fortification.
 - Define LD₅₀ value of any toxicant.
 - Write the full forms of PSP and DSP.
 - What do you mean by 'Biotransformation'?
 - Define food additives with one example.
 - What do you mean by in-vivo and in-vitro study

(2)

Group-B

2. Answer any four questions from the following: 4x5 = 20

- a) Any transgenic technology is preferred over hybridization for food fortification? What do you mean by 'Knock out' study in genetic modification? 3+2
- b) State any five major factors that influence the toxicity of a toxicant. 5
- c) What do you mean by genotoxic effect of toxicant? Write in brief the mode of action of genotoxic effect of a toxicant. 2+3
- d) Write in brief the toxic effect of Pb and Hg on human health. $2\frac{1}{2} + 2\frac{1}{2}$
- e) Write the process of clinical trial covering single blind and double blind study. 5
- f) Evaluate toxicity of any one toxicant from the view points of 'Risk vs. Benefit'. 5

Group -C

3. Answer any one question of the following: 1x10 = 10

- a) Describe the steps of iron fortification in golden rice. Write in brief about the acceptability of GM food. 7+3
- b) Write a short note on 'food poisoning'. State the prospective and retrospective studies for evaluation of food toxicants. 4+3+3