

PG CBCS
M.Sc. Semester-IV Examination, 2022
DEPARTMENT OF FOOD SCIENCE & NUTRITION
 PAPER: FSN 401
(GENETICALLY MODIFIED FOODS, FOOD FORTIFICATION AND FOOD TOXICOLOGY)

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

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.

GROUP-A**1. Answer any two questions:****2 X 8=16**

- a) Make a list of commercialized disease resistant GM crops. Describe briefly the molecular biology behind the GM crop production. 2+6
- b) Name the different types of GM-tomato. Describe briefly, how does vitamin A rich tomatoes are developed. 2+6
- c) Mention the name of common food vehicle that are used in food fortification. Write the importance of 'Mass food fortification' in community health up gradation. 3+5
- d) Mention the name of four naturally occurring plant toxin and explain their toxicity in human health. Briefly describe about the toxicity of NSP and DSP.

GROUP-B**2. Answer any four questions:****4 X 4=16**

- a) Write a short note on "Bt-soyabean".
- b) Discuss the four main types of GM-food development techniques.
- c) Categories the different GM-food sample analysis techniques.
- d) "Animal model as predictor of human toxicity"- Justify.
- e) State the toxicity of organochlorine and organophosphate.
- f) What is neurotoxin?
- g) Alfa toxin acts as potent hepato toxin-Justify.
- h) Briefly explain about mushroom poisoning.

2+2

GROUP-C**3. Answer any four questions:****4 X 2=8**

- a) What is Codex principal"?"
- b) Define LD50 and ED50.
- c) What is the second-generation GM food? Give Examples.
- d) Why are risk and safety assessment required on GM-food?
- e) What do you mean by forensic toxicology?
- f) Define hidden hunger.
- g) What is Minamata disease?
- h) State the toxicity of arsenic on human.

