

SUPPLEMENTARY EXAM

Food and Cosmetics Toxicology (MTXCC-201)

Maximum marks- 60
18-09-2023; Time: 2.30

Q1- Mark true (T) or false (F). If false, correct the statement (10).

- 1- Goitrogens can block the process by which iodine is incorporated into the key thyroid enzymes
- 2- Mercury is a natural element in foods
- 3- Microplastics affect the ability of soil to hold water
- 4- Tetrodotoxin (TTX) is a naturally occurring toxin in puffer fish
- 5- Ciguatera fish poisoning (CFP) occurrences are not attributable to inadequate food handling, storage, preparation, or procurement methods

Q2- Give a reason for the following (24)

- 1- AFB1 interferes with micronutrient absorption
- 2- Plant protease inhibitors (PPIs) fit the definition of a functional food
- 3- Almost no UV-C can penetrate the earth's atmosphere
- 4- Goitre is an endemic disease
- 5- Consumption of puffer fish causes paralysis
- 6- Diethanolamine (DEA) is used as a pH stabilizer in cosmetics
- 7- Mercury (Hg) concentrations in wild fish are 2–12 times higher than in farmed species
- 8- The fish infected with algal blooms often die in the early hours of the morning
- 9- The typical symptoms of IgG-mediated food allergy are rapid in onset and even cause death
- 10- Mannitol is infused to patients subjected to Ciguatera fish poisoning (CFP)
- 11- Diethanolamine (DEA) is used as pH stabilizer in cosmetics
- 12- Dark-skinned people are better protected against skin cancers than light-skinned

Q3 Define in 1-2 sentences (any 4 of the following) (8)

- 1- Anaphylaxis
- 2- Bioconcentration factor
- 3- Food allergy
- 4- Immunoglobulin E (IgE)
- 5- Goitrogens
- 6- Amanita toxins
- 7- Saponin toxicity in humans
- 8- Antivitamins

Q4- Explain the protective mechanism of skin defense against UV radiations (6)

Q5 - Differentiate between the Kunitz inhibitor and the Bowman-Birk inhibitor (6)

Q6 - List any 5 most common chemicals found in cosmetics, and explain their mode of entrance to the human system and discuss their detrimental effects on health (6)