

DEPARTMENT OF SCIENCES
III SEMESTER M.Sc. (CHEMISTRY)
END SEMESTER REGULAR EXAMINATIONS, DECEMBER 2023
Chemistry in Everyday Life [CHM 6051]
(CHOICE BASED CREDIT SYSTEM - 2021)

Time: 3 Hours

Date: 5 / 12 / 2023

MAX. MARKS: 50

- Note (i) Answer ALL questions
(ii) Draw diagrams, and write equations wherever necessary

Q. No.		Marks	CO	BL
1A	A food product has the following ingredients: Sucralose, potassium disulphite, methyl benzoate, Food Yellow 4. Explain the role of these ingredients.	2	1	2
1B	What are dyes? How they are different from optical brighteners? Explain any two methods of dyeing process.	4	2	2
1C	Discuss the medical condition under which the following drugs are administered: (a) tranquilizers, (b) analgesics, (c) antihistamines and (d) antimicrobials.	4	3	2
2A	Discuss how soaps and detergents are (a) similar and (b) different.	2	2	2
2B	Explain any two factors which make water NOT fit for consumption. Also suggest a method to make it fit for consumption.	4	5	3
2C	What are (a) BOD and COD, (b) hard and soft water?	4	5	2
3A	Explain (a) degree of polymerization and (b) functionality.	2	2	2
3B	What are fertilizers? With example, explain straight and compound fertilizers.	4	5	2
3C	What are (a) insecticides and (b) insect repellents? How insecticides are different from pesticides?	4	5	2
4A	With suitable example, explain the classification of polymers based on temperature and mechanism of formation.	2	2	3
4B	What are mono and disaccharides? Write the general structure of (a) aldose which is pentose and (b) ketose which is hexose.	4	4	3
4C	What are amino acids, proteins, and vitamins?	4	4	2
5A	Write the structure of C18-omega-3 acid and C12-delta-3-acid.	2	4	3
5B	Write the anodic, cathodic, and overall reactions for the following cells: Zn Zn ²⁺ Ag ⁺ Ag Al Al ³⁺ Cu ²⁺ Cu	4	3	3
5C	Discuss differential aeration corrosion and stress corrosion.	4	3	2
