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GIET UNIVERSITY, GUNUPUR - 765022
M. Sc. (Third Semester) Examinations, December - 2023
22CHPE304 - Environmental and Analytical Chemistry
(Chemistry)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A**(2 x 10 = 20 Marks)**Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. What is Greenhouse effect?	CO1	K1
b. Write the principle of automatic monitoring of Nitrogen oxides.	CO2	K1
c. What is the hardness of water?	CO2	K2
d. What is alkalinity?	CO1	K1
e. How does polluted water responsible to disturb ecological balance?	CO3	K1
f. Describe use of radio isotopes in agriculture	CO4	K2
g. What are Particulate matters?	CO2	K1
h. Write any two uses of radio isotopes in medicines.	CO3	K1
i. Define excitation fluorescence spectrum? How it is obtained?	CO4	K2
j. How does polluted water responsible to disturb ecological balance?	CO2	K1

PART – B**(10 x 5=50 Marks)**Answer **ANY FIVE** questions

	Marks	CO #	Blooms Level
2. a. What is ozone layer depletion? Describe its effects on human health, materials, food production and climate.	5	CO2	K1
b. What is acid rain? Write causes of acid rain on environment	5	CO2	K2
3.a. What are the major air pollutants and describe their effects on human health.	10	CO3	K1
4. a. What is dissolved oxygen? What are the applications of dissolved oxygen analysis?	5	CO3	K1
b. Write short notes on sources, cause of water pollution	5	CO1	K1
5.a. Write notes on Tertiary Waste water treatment	8	CO4	K2
b. Write notes on BOD	2	CO1	K1

6. a.	Describe the principle and techniques involved in Flame emission spectroscopy.	10	CO3	K2
7.a.	Explain why atomic emission spectroscopy is regarded as superior methods of analysis to flame tests.	2	CO4	K2
b.	What are the advantages and disadvantages of atomic absorption spectroscopy	8	CO3	K1
8. a.	How will you find out surface area of powder or precipitate?	5	CO4	K2
b.	Write short notes on Radioactive decay.	5	CO2	K1