

Roll No.....

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Department of Chemistry
School of Chemical & Life Science
M.Sc. Chemistry/Semester III
Paper Code: MCHCOE-307
Paper Title: Environmental Chemistry

Time; 2.5 hrs

Max.Marks 60

Attempt All questions. All parts of a question must be attempted in continuation. Start answer of a fresh question on a new page. Cite examples and draw diagrams wherever necessary.

Section A

Attempt all question

(10x1.5=15Marks)

Q.No		BTL	CLO	PLO
A.1	Describe the vertical layering of the atmosphere.	2	1	2
A.2	“Most of the mass of the atmosphere is in the first 10 km altitude.” Comment on this statement with justification for your answer.	1	3	2
A.3	What is the role of the Ozone layer in maintaining the solar energy budget?	2	3	1
A.4	What is Global warming Potential and how is it calculated? Give Examples.	3	5	2
A.5	Why are air quality standards important?			
A.6	What are the similarities and differences between WHO and Indian air quality standard?	5	6	2
A.7	How industrial activity can be made to be environmentally friendly?	4	3	3
A.8	What are the types of chemicals we use in our daily life and how do we minimise their use?	5	5	1
A.9	How will you use Lambert Beer law to study water pollutant?	1	6	1
A.10	What is Harvesting method?	6	5	3

Section B

Long type Questions (Attempt *any two* out of four)

(2x10=20Marks)

Q.No.		BTL	CLO	PLO
B.1	Explain the stages of Oxygen Cycle with examples and human effects on oxygen cycle.	3	1	2
B.2	Explain the challenges faced in waste-disposal management in India.	5	5	3
B.3	What are the effects of pollution on non-living things and living things?	1	2	2
B.4	What are chemical solutions to environmental problems?	4	4	4

P.T.O

Section C

Attempt *all* questions. Each question has an internal choice

(5x5=25 Marks)

Q.No.		BTL	CLO	PLO
C.1	Explain water treatment process. OR Explain Water table Maintenance.	1	5	3
C.2	Explain Aeration and Nanofiltration. OR Explain reverse osmosis and desalination.	4	3	2
C.3	Explain the treatment process of waste from sugar industries. OR Explain the treatment process of waste from Drug industries	5	6	2
C.4	Explain the National & International parameters of Water. OR Explain the National & International parameters of Water.	1	2	1
C.5	Explain the analytical methods for monitoring Air pollutants. OR Explain the analytical methods for monitoring ^{water} Air pollutants.	6	6	2

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