Total No. of Questions : 4] **SEAT No. :**

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T.Y. B.Sc. CHEMISTRY (Semester - IV)
CH - 346 (D) : Environmental And Green Chemistry
(2013 Pattern) (Elective - II) (Paper - VI)

Time :2 Hours] ***[Max. Marks :40***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Neat diagrams must be drawn wherever necessary.***

Q1) Answer the following: **[10]**

i) What is mean by 'Sludge Gas'.

ii) What is mean by 'Soil Horizon'.

iii) What is role of carrier gas in gaschromatography (GC)

iv) Which is most commonly used detector in HPLC.

v) Why carbon dioxide is I.R. active.

vi) What is mean by 'Heat of Vaporisation'.

vii) How much energy stored by C = O bond.

viii) Define 'Screening'

ix) Define 'Incineration'.

x) Explain 'Green house effect'.

Q2) a) Explain any two of the following : **[6]**

i) Explain 'Green house gases'.

ii) Explain in detal "Electrodyalysis'.

iii) Explain 'Mackereth oxygen cell'.

P.T.O.

(b) Write short notes on (any two) **[4]**

i) Wind energy

ii) Fizzy Water

iii) Sanitary Land fills

Q3) Answer any two of the following : **[10]**

i) Explain in detail Secondary or biological waste water treatment.

ii) Explain in detail principle and working of gas chromatography (GC)

iii) Give an account on various chemical processes in water.

Q4) a) Explain Acid - base and Ionic reactions in soil and PH of soil. **[6]**

OR

What is Nuclear energy. Explain typical Nuclear fission power plant.

b) Write note on <u>any one</u> of the following : **[4]**

i) Global Warming and climate changes.

ii) Metals in water

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