

SECTION-C

Note: Long answer type questions. Attempt any three questions.

$$3 \times 10 = 30$$

- Q.3 Discuss liquid analysis by PH measurement.
- Q.4 Explain gas chromatography in detail.
- Q.5 Explain monitoring instruments for environmental pollution.
- Q.6 Explain working principle of paramagnetic oxygen analyzer.
- Q.7 Explain basic concepts of absorption & mass spectroscopy.

No. of Printed Pages : 4

Roll No.

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5th Sem. / IC / EI

Subject : Analytical & Env. Instt.

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. $(15 \times 2 = 30)$

- Q.1 a) Water Pollution.
b) Analytical Instruments.
c) PH.
d) Receiver.
e) Instrumentation.
f) Detectors.
g) Infra-Red.
h) Dust Measurement.

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- i) Conductivity meter.
- ii) Describe column used in gas chromatography.
- j) Spectrometers.
- iv) Explain electrodes for PH measurement.
- k) Analyzer.
- v) What is thermal conductivity analysis.
- l) Unit of conductivity is _____.
- m) L.C.D.
- vi) Describe various gas pollutants in atmosphere.
- n) Transducer.
- vii) Discuss aqua meters.
- o) Air pollution.
- viii) Write short note on water & noise pollution.
- p) Paramagnetic gas.
- ix) What are analytical instruments.
- q) Injectors.
- x) What do you mean by liquid analysis.
- r) Filter.
- xi) Discuss dust measurement.
- xii) What is mass spectroscopy.

SECTION-B

Note: Short answer type questions. Attempt any ten parts $10 \times 4 = 40$

- Q.2 i) Discuss NMR spectroscopy.
ii) Explain infra-red gas analyzer.

- xiii) Mention monitoring of water & noise pollution.
- xiv) Explain absorption spectroscopy.
- xv) Discuss conductivity meters.

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