No. of Printed Pages : 4
Roll No. .....

031565/1562

6th Sem. / IC

Subject : Analytical and Environmental Instruments

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Explain / Expand the following.

Q.1 a) Noise.

b) Electrodes.

c) Transducer.

d) Spectroscopy.

e) Cell.

f) Pollution.

g) Analyzer.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Explain the block diagram of analytical instrument with detail.

Q.4 What do you mean by Bio-sensors? Explain the solid state biosensors in detail.

Q.5 What do you mean by noise pollution? Explain in detail.

Q.6 Explain the PH-meter in detail.

Q.7 Discuss the Gas-chromatography in detail.

h) Chromatography.

i) Conductivity.

j) PH value.

k) Decibal.

l) Instrumentation.

m) Instrumentation.

n) Standards.

o) Detector.

p) Bio sensors.

q) Thermal Conductivity.

r) Name two optical source.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Explain absorption spectroscopy.

ii) Discuss Infrared gas analyzer.

iii) What do you mean by chromatography?

iv) Explain the principle of PH-measurement.

v) Discuss the Air quality Standards.

vi) What is Potentio meter? Explain.

vii) Discuss the water pollution.

viii) What is optical biosensors.

ix) Explain the smoke meter.

x) Explain application of liquid chromatography.

xi) What is mass spectroscopy? Explain.

xii) Explain the function of AQVA meter.

xiii) Explain the labelled diagram of inforced gas analyzer.

xiv) Explain thermal conductivity meter.

xv) Explain the Volta metric bio-sensors.