

BE Semester-VI (I.C.) Question Bank

(IC 602 Measurement and Control Techniques)

All questions carry equal marks(10 marks)

Q-1	Write a short note on paramagnetic O ₂ Analyzer.
Q-2	Explain in detail the method used to measure amount of different components in a composite material.
Q-3	Write a short note on Smoke detector.
Q-4	What design features you need to take care of while designing any environmental pollution instrument?
Q-5	Name different types of pH electrodes. Explain any two in detail with diagram.
Q-6	Write a short note on conductivity meter.
Q-7	Explain in detail the techniques to measure impurities in water.
Q-8	What is the difference between Thermal Conductivity and Electrical conductivity? Explain Thermal Conductivity type gas analyzer in detail.
Q-9	How oil in water is measured and monitored? Discuss in detail.
Q-10	What is the difference between Gas Chromatography and Liquid Chromatography ? Explain how Gas Chromatography is done on Gas constitute.
Q-11	Draw and explain pH scale. Explain Combined pH electrode in detail with diagram.
Q-12	Write a short note on fibre optic sensor and Smart sensors.
Q-13	Define Cell Constant of electrical conductivity measurement. List out application of electrical conductivity in Power Engineering.
Q-14	List out various pH measurement methods. Describe E.M.F. measurement instrument using pH Electrode.
Q-15	What is Analyzer? Explain working, application, merits and demerits of Amonia Analyzer.
Q-16	Write a short note on Visible Emission Monitoring system.
Q-17	What is the importance of Air monitoring System? Describe Air Monitoring system in detail with diagram.
Q-18	Write a short note on Steam Purity meter.
Q-19	Write a short note on X-Ray sensor.
Q-20	Write a short note on Semicconductor IC Technology.
Q-21	Explain the principle, working and application Infrared Spectrometer in detail.
Q-22	Describe various factors to be considered to find the safe location of Analyzers and the sampling points.
Q-23	Explain Mass Spectroscopy in detail.
Q-24	What is MEMS? Explain MEMS in detail with advantages and uses.
Q-25	Explain Geiger- Mullar counter in detail with diagram.
Q-26	Explain Nano sensors in detail.
Q-27	Write a short note on CHEMFET.
Q-28	Explain various factors affecting the Radiation measurement.
Q-29	Write a short note on Scintillation detector.
Q-30	Explain how data communication takes place in Smart Sensors .
Q-31	Write a short note on Electrochemical Cell.

Q-32	Write a short note on Hydrogen electrode.
Q-33	Write a short note on Nuclear Sensor.
Q-34	What are commonly found defects in sensors? Explain in detail different methods to overcome non-linearity.
Q-35	Write a short note on IR gas analyzer.
Q-36	Explain in detail, ion-selective membrane electrodes.
Q-37	Explain spectral sensitivity and spectral threshold with respect to radiation sensors.
Q-38	Write a short note on Automatic Hydrogen Gas Analyzer.
Q-39	Write a short note on Copper Analyzer.
Q-40	Write a short note on Iron Analyzer.