

ELECTRONIC INSTRUMENTATION & COMMUNICATION SYSTEMS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 Define accuracy in measurement.
- 2 State the principle of wheat stone's bridge.
- 3 What is shunt resistor? Where is it used?
- 4 What is rectification?
- 5 What is environment air pollution? Name some pollutants.
- 6 Of what materials does the reference electrode made in P_H metre?
- 7 Define troposphere.
- 8 Define wave impedance.
- 9 Define geostationary orbit.
- 10 State Kepler's I law of motion.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Explain the different classification of errors.
OR
b Explain the theory of Kelvin bridge & how it is used to measure resistance?
- 12 a Briefly explain magneto optic current errors.
OR
b Explain electromechanical DC ammeter.
- 13 a Explain the action of capillary tube viscometer.
OR
b Write short note on measurement of P_H value.
- 14 a Derive an expression for the power gain of an antenna.
OR
b Explain the lonospheric propagation.
- 15 a Briefly explain transponders in satellite communication.
OR
b Explain (a) Power system (b) altitude control of geostationary orbit.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Explain in detail about the standards used in measurements.
- 17 Explain the action of analog electronic AC voltmeter.
- 18 Explain in detail biometric measurement of environmental air pollution.
- 19 Explain in detail about low frequency and ultra low frequency propagation of surface waves.
- 20 Explain in detail about transmission and reception of TV signals.