

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 What is meant by measurement? What are the two basic requirements of measurements?
- 2 Define accuracy and resolution.
- 3 Write about static electric field.
- 4 Write short note on rectifier.
- 5 Define viscosity.
- 6 What is meant by biometrics?
- 7 Write a note on wave sude.
- 8 Write an equation for plasma frequency and critical frequency.
- 9 State Kepler's law of motion.
- 10 Write about limit of visibility.

SECTION - B (25 Marks!)

Answer ALL Questions

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

- 11 a Discuss briefly about standard of measurements and its types.  
OR  
b With neat diagram, explain the operation of Kelvin bridge.
- 12 a Write note on DC and AC voltage measurement.  
OR  
b Explain briefly Electro mechanical DC voltmeter in detail.
- 13 a Write about (i) Viscosity (ii) Moisture (iii) Humidity.  
OR  
b Explain briefly specific gravity monitoring.
- 14 a Discuss about Ionospheric propagation in detail with diagram.  
OR  
b Derive an expression power gain of an antenna.
- 15 a With neat diagram, explain colour T.V receiver in detail.  
OR  
b Discuss about transponders in satellite communication.

SECTION - C (30 Marks!)

Answer any THREE Questions

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

- 16 Describe the operation of Wheatstone's bridge. Write its advantages and applications.
- 17 Explain about a.c voltmeter measurement using rectifier.
- 18 Obtain the fibre optic transducer with diagram.
- 19 Write an essay about tropospheric propagation.
- 20 With neat diagram, explain the facsimile transmission.