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121563A

6th Sem. / Instrumentation & control

Subject : Opto Electronics Devices and their Applications.

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.1 Write full form of LED,

Q.2 Mention any one Optical Instrument.

Q.3 Draw symbol of photo diode.

Q.4 Mention one application of LED.

Q.5 Write one application of Opto electronics.

Q.6 Define transmission loss.

Q.7 Expand laser.

Q.8 Expand LDR.

Q.9 Define Optical transducer.

photometer.

Q.34 What is Laser? Discuss its emission and various types.

Q.35 Describe construction, Application and material used for LED.

Q.36 Explain construction and working of Optical Pyrometer.

Q.10 Optical pyrometer is used for measurement of_____.

SECTION-B

Note: Very Short answer type questions. Attempt any ten questions out of twelve questions(10x2=20)

Q.11 Define Polarization

Q.12 What are dispersion losses.

Q.13 Mention two Optical transmitters.

Q.14 Define Photo-conductive devices.

Q.15 What are power LEDs.

Q.16 Mention mode of communication in Optical fibers.

Q.17 Define Network.

Q.18 Define Photo-transistor.

Q.19 Mention any two Optical connectors.

Q.20 Draw symbol of photo transistor.

Q.21 Define Refraction.

Q.22 Define Opto electronics.

SECTION-C

Note: Short answer type questions. Attempt any eight question out of ten questions. (8x5=40)

Q.23 Explain the use of Lasers for Distance measurement.

Q.24 Discuss principle of transmission through fiber.

Q.25 Differentiate between LED and power LED.

Q.26 Explain different types of lasers.

Q.27 Describe various types of optical connectors.

Q.28 Discuss Photo- Electric field in Optics.

Q.29 Explain Photo- Diode with suitable diagram.

Q.30 Describe light intensity meter with its diagram.

Q.31 Explain characteristics of fibers.

Q.32 Discuss Polari meter.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. (3x10=30)

Q.33 Explain construction and working of Spectro-