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121563A

6th Sem. / I.C

Subject : Opto Eltx. Devices & Their Application

Time : 3 Hrs. M.M. : 100

SECTION-A

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

Q.1 a) Write full form of LASER.

b) Define Interference.

c) State Snell's Law.

d) Define connectors and write any one.

e) Define dispersion.

f) Define angle of Refraction.

g) What are optical transmitters?

h) Applications of LED.

i) What is splicing.

SECTION-C

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

Q.3 Draw & explain PIN Diode in detail with its advantages & disadvantages.

Q.4 Explain optical pyrometers in detail.

Q.5 Classify optical fibers in detail & losses in fiber.

Q.6 Explain optical detectors used in optical fibers.

Q.7 Write short note on :-

(i) LDRs.

(ii) Types of LASER.

j) What is function of optical filters.

k) Applications of optical fibers.

l) Define source coupling.

m) What is photo-conductive filter?

n) What are power LEDS?

o) Define opto isolators.

p) Define polarization.

q) Two applications of LASER.

r) Two types of fiber.

SECTION-B

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

Q.2 i) Discuss the principle of LED.

ii) Explain two types of splicing.

iii) Explain the multiplication process in photodiodes.

iv) What are characteristics of fiber?

v) Define & explain LASER & its principle.

vi) What is the basic principle of Avalanche photodiode?

vii) What are two fundaments of laser emission used?

viii) Give the principle of transmission through fiber.

ix) Write briefly about opto isolators.

x) What is mode of communication of optical fibers? Explain.

xi) Explain the use of LASER in distance measurement.

xii) Write a short note on light intensity meter.

xiii) Write industial applications of lasers.

xiv) Write about connectors and good properties of connectors.

xv) Explain fabrication of optical fiber.