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Total No. of Pages : 01

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M.Tech. (ECE) EL-II (2018 & Onwards Batch) (Sem.-1)

OPTICAL COMMUNICATION SYSTEM

Subject Code : MTEC-PE2Y-18-5

M.Code : 75181

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

Q1. List and explain briefly the losses in optical fiber.

Q2. a) Explain single mode and multi-mode fibers in detail.

b) Write a brief note on plastic glass fibers.

Q3. a) Explain PN junction diode theory in detail.

b) Give comparison between LED and Laser diode.

Q4. Explain in detail the amplification mechanism with energy level diagram in an EDFA.

Q5. a) With a neat sketch explain WDM technique.

b) Explain briefly the mechanical splicing technique.

Q6. With suitable diagram describe SONET/SDH optical network function.

Q7. a) Write a brief note on problem associated with optical OFDM.

b) Describe briefly the significance of fiber cut-off wavelength in optical fiber measurement.

Q8. a) Explain various applications associated with OFDM.

b) Write a short note on the following :

a. Numerical aperture

b. Total internal reflection

c. Peak to average power ratio

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.