

No. of Printed Pages : 4
Roll No.

221054

5th Sem / ECE, ECE(For Speech and Hearing Impaired)
Subject : Optical Fibre Communication

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The wavelength range for the fourth window is _____ (CO1)

- a) 1550 nm
- b) 1625 nm
- c) 1750 nm
- d) 1580 nm

Q.2 The optical light detector is a part of (CO4)

- a) Transmitter Section
- b) Reciever Section
- c) None

Q.3 Which parameter shows a temporary joint between optical fibers? (CO2)

- a) Connectors
- b) Splice
- c) Couplers
- d) None

Q.4 A LED is a (CO3)

- a) Coherent source of light
- b) Non coherent source of light
- c) None

Q.5 On the basis of mode of wave propagation, the optical fibres are divided into (CO2)

- a) Two
- b) Four
- c) Three
- d) None

Q.6 SOA is : (CO5)

- a) Semiconductor optical amplifier
- b) Sand optical amplifier
- c) similar optical amplifier
- d) semiconductor optical application

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 The refractive index of core is _____ than that of cladding. (CO1)

Q.8 Multi Mode fiber does not suffers intermodal dispersion. (True/False) (CO2)

(1)

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(2)

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- Q.9 EDFA posses _____ Ion. (CO5)
- Q.10 Attenuation is the loss of _____ as light travels along the fiber. (CO2)
- Q.11 LED stands for _____. (CO3)
- Q.12 PIN stands for _____. (CO4)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What do you mean by optical light detector. (CO4)
- Q.14 Explain in brief the Multi Mode graded index fiber. (CO2)
- Q.15 Explain in brief the application of Optical Fibre Communication. (CO1)
- Q.16 Explain spontaneous emission. (CO3)
- Q.17 Explain the block diagram of Optical Fibre Communication. (CO1)
- Q.18 Define optical Connectors. (CO2)
- Q.19 Write a short note on Surface Emitting LED. (CO3)
- Q.20 Explain APD. (CO4)
- Q.21 Explain in brief the types of bending losses. (CO2)
- Q.22 Explain the basic principle of EDFA. (CO5)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Write in detail about the mechanical splicing method. Why glue is used in mechanical splicing. (CO2)
- Q.24 Describe different types of Optical amplifiers. (CO5)
- Q.25 Explain in detail about the distributed feedback laser & also explain the laser characteristics. (CO3)