

S.B. Roll. No.....

OPTICAL FIBER COMMUNICATION
5th Exam/ECE/2617/Jun'2022
(For 2018 Batch Onwards)

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Do as directed.

15x1=15

- a. Define Attenuation.
- b. Define Modal Dispersion.
- c. Define Splices.
- d. How refractive index of core and cladding are related?
- e. How many modes are propagated by single mode fiber?

What does following stands for?

- f. APD
- g. NGN
- h. LASER
- i. EDFA
- j. IOT
- k. State snell's law.
- l. What is the unit of dispersion?
- m. What is bit rate?
- n. What are bending losses?
- o. Give the name of any one light source.

SECTION-B

Q2. Attempt any six questions.

6x5=30

- i. Define the terms Critical angle and Acceptance angle?
- ii. Write short note on SOA.
- iii. What are the types of optical fibers cables?
- iv. What are the advantages and disadvantages of LED?
- v. Compare Step index and Graded index Optical Fiber.
- vi. Write short note on IOT
- vii. What are the applications of optical fiber communication?
- viii. What are the types of optical amplifiers?

SECTION-C

Q3. Attempt any three questions.

3x10=30

- a. What is the advantages and disadvantages of optical fiber communication
- b. What are the different types of Losses in optical fiber? Explain Briefly
- c. Explain the working of LASER with the help of neat diagram.
- d. Explain working of APD with the help of neat diagram.
- e. Write Short note on i) Splicing Technique b) PIN diode applications EDFA iii) EDFA