Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May– 2017**

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| **Code :** | **14EC2048** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FIBER OPTIC COMMUNICATION** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Summarize the attenuation and dispersion effects in optical communication. | CO2 | 20 |
| (OR) | | | | |
| 2. | a. | Explain with neat diagram the elements of an optical fiber transmission link. | CO1 | 15 |
| b. | What are the advantages and disadvantages of fiber optic communication? | CO1 | 5 |
| 3. |  | Differentiate types of LED’s with neat diagrams. | CO3 | 20 |
| (OR) | | | | |
| 4. |  | Explicit the working principle of Avalanche Photo Detector. | CO3 | 20 |
| 5. |  | Describe the types of optical switching commonly used in optical networks. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Discuss about semiconductor Raman Amplifier in optical communication. | CO2 | 20 |
| 7. |  | Explain about Soliton based optical communication. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Illustrate the necessity of pumping in EDFA amplifier. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Differentiate stimulated and spontaneous emission. | CO1 | 10 |
|  | b. | Explain in detail about semiconductor injection laser diode. | CO3 | 10 |

ALL THE BEST