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BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 2019
DIPLOMA IN ELECTRONICS AND COMMUNICATION ENGINEERING
OPTICAL & MOBILE COMMUNICATIONS
FIFTH SEMESTER EXAMINATION

Time: 3 Hours **Total Marks: 80**

PART - A (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. Classify optical fibers based on core diameter and give their approximate values of core diameters
2. List the extrinsic losses of Optical Fibers
3. Distinguish between a coupler and splitter in Fiber Optic Communication
4. List the various fiber optic active components
5. Define space division switching and time division switching
6. Classify various telephone switching systems
7. Define channel capacity in mobile communication
8. State the need for frequency reuse in mobile communication
9. List the features of digital cellular system.
10. List the salient features of 4G

PART - B (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11.

12. a) Classify fibers based on refractive index profile and explain with sketches

    b) Classify fibers based on core diameter and explain

13. Explain the Block Diagram of fiber optic communication system

14. (a) State the functions of Mobile Switching Centre with basic block diagram

    (b) List and define various Channels in Mobile communication

15A. List the two types of optical sources and give the differences between them

B. Explain how electronic telephony is superior over manual telephony

16. (a) Give the features of TDMA

    (b) Give the features of CDMA

17. Explain the process of call progress in cellular telephone system

18. Explain the Global system for Moblie communication with block diagram.

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