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BOARD DIPLOMA EXAMINATION
JUNE - 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. Distinguish between intrinsic losses and extrinsic losses in fibers

2. Define numerical aperture.

3. List the various fiber optic components

4. Define the term quantum efficiency of a light source

5. List the advantages of DTMF dialling over Pulsed dialling

6. Define the terms mobile station and base station

7. Distinguish between co-channel interference and adjacent channel interference

8. Write the differences between TDMA and CDMA

9. List the supplementary services of GSM system

10. State the features of GPRS.

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. (a) Explain the structure of optical fibre with neat diagram   5M

    (b) Explain the principle on which optical fiber works   5M

12. Draw and explain block diagram of WDM system.

13. Explain the Block Diagram of fiber optic communication system

14. (a) (a)State the functions of Mobile Switching Centre

    (b) Define voice and control Channels in Mobile communication

15A. Define the salient features of Optical Sources

  B. Compare In–band and out–band telephone signals.

16. Explain the process of call progress in a cellular telephone system.

17. Define TDMA and give its features

18. Explain the security aspects of GSM system

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