



C14-EC-506

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**BOARD DIPLOMA EXAMINATION, (C-14)
OCTOBER/NOVEMBER-2018
DECE-FIFTH SEMESTER EXAMINATION**

MOBILE COMMUNICATIONS

Time: 3 Hours]

[Total Marks: 80

PART-A

3X10=30

- Instructions :**
1. Answer **All** questions.
 2. Each question carries **Three** marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the terms mobile station and base station.
2. Define roamer.
3. State the relation between capacity and cluster size.
4. List two methods of improving channel capacity.
- * 5. State the need for multiple access techniques.
6. List two types of spread spectrum techniques.
7. List the features of narrow band AMPS.
8. Mention the features of digital cellular system.
9. Write the features of GPRS.
10. List the salient features of 3G system.

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PART-B

10X5=50

- Instructions* : *
1. Answer any **Five** questions.
 2. Each question carries **ten** marks.
 3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. Distinguish between frequency division duplex (FDD) and time division duplex (TDD).
12. (a) State the need of hexagonal cell site.
(b) Explain the concept of frequency reuse.
13. (a) Explain channel assignment strategies.
(b) Define HAND-OFF in mobile communication.
14. (a) Explain time division multiple access technique (TDMA).
(b) List the features of FDMA
15. Explain in detail about the frequency hopped spread spectrum (FHSS).
16. (a) Compare AMPS and GSM.
(b) List the service aspects of GSM
17. (a) Explain the frame structure of the GSM
(b) List various interfaces in GSM architecture.
18. (a) Compare the features of GSM, GPRS and EDGE.
(b) List the specifications of DECT system.

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