

Roll No.

3550

**B. Tech. 7th Semester (ECE) Professional
Elective-III Examination – February, 2022**

MOBILE COMMUNICATION AND NETWORKS

Paper : PEC-ECE-410-G

Time : Three Hours] [Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Answer five questions in all. Q. No. 1 is compulsory and attempt one question from each Unit. All questions carry equal marks.

1. Write short notes on the following : 15
- (a) 3G
 - (b) Fading
 - (c) CDMA
 - (d) OFDM

UNIT – I

2. (a) Describe cellular concepts in detail. 8
- (b) Explain the concept of frequency reuse. 7

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3. (a) Explain the various wireless standards. 8
 (b) Explain the various cellular standards. 7

UNIT – II

4. (a) Compare slow and fast fading concept. 8
 (b) What is average fade duration and level crossing rate. 7
5. (a) Explain partition losses between floors. 8
 (b) Compare Walfishch and Bertoni model. 7

UNIT – III

6. Describe various multiple access schemes in detail. 15
7. (a) Compare QAM, MSK and GMSK. 8
 (b) Compare OFDM and OFDMA in detail. 7

UNIT – IV

8. (a) What is the gateway concept ? Explain. 8
 (b) Explain measurement reports in cellular system. 7
9. (a) Explain uplink and downlink communication in LTE. 8
 (b) Describe the architecture of GSM. 7