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Roll No. :

328733(28)

B. E. (Seventh Semester) Examination,

April-May 2021

(New Scheme)

(Electronics and Telecommunication Engg. Branch)

WIRELESS COMMUNICATIONS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all the questions. Part (a) is compulsory of each unit and carries 2 marks. Attempt any two from (b), (c) and carries 7 marks.

Unit-I

1. (a) Give two example of 2.5G and 3G Standard. 2

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- (b) Give comparison between different wireless communication systems. 7
- (c) Discuss evolution of Mobile radio communication. 7
- (d) Write short notes on : 7
- (i) Paging System
 - (ii) Cordless Telephone

Unit-II

2. (a) Why hexagonal cell shape is chosen to model cellular structure? 2
- (b) Discuss "Channel Assignment Strategies" and "Hand Off Strategies". 7
- (c) Explain with neat diagram the cellular concept. What do you understand by frequency reuse? 7
- (d) Explain how coverage and capacity in cellular system can be improved? 7

Unit-III

3. (a) Write the full form of HLR and VLR. 2

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- (b) Describe the radio interface of GSM. 7
- (c) What are the Security features available in GSM? 7
- (d) Explain the subsystem of GSM architecture and draw its flowchart, also explain the relation between BTS- MSC. 7

Unit-III ~~III~~ IV

4. (a) Define Modulation. 2
- (b) What is Spread Spectrum? Explain frequency hopping spread spectrum in details. 7
- (c) Explain M-ary Phase Shifting Keying (MPSK) modulation technique. 7
- (d) Discuss DS-SS. 7

Unit-V

5. (a) Define time dispersion and time alignment. 2
- (b) Explain fundamentals of equalization frequency hopping. 7

- (c) Explain the three basic Propagation Mechanisms and their impacts on Wireless Communication. 7
- (d) How channel coding and interleaving can help reducing the transmission loss of mobile radio propagation? 7