

Roll No.

Total Pages : 02

BT-8/M-18

38023

MOBILE COMMUNICATION

IT-454

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Discuss the various types of handoffs and their characteristics. 10
- (b) Discuss the concept of frequency reuse. 10
2. (a) Describe Co channel interference in mobile communication. How one can reduce it ? 10
- (b) What are digital modulation techniques ? Explain performance of various modulations. 10

Unit II

3. (a) Explain point to point model in mobile communication. 10
- (b) Discuss smart antennas in detail. 10

4. (a) Describe effects of antenna height, antenna gain and pattern downtilting for mobile radio. 12
- (b) Write short note on diversity techniques. 8

Unit III

5. (a) What is digital mobile telephony ? Explain its utility. 10
- (b) Discuss various GPRS procedures in detail. 10
6. Write short notes on the following : 20
- (a) North TDMA
- (b) American TDMA (IS136)
- (c) UTMS
- (d) WAP.

Unit IV

7. (a) Discuss the satellite system architecture in detail. 10
- (b) Describe advanced mobile communication system using satellite. 10
8. Write short notes on the following : 20
- (a) MSAT
- (b) Orbcomm satellite service
- (c) DBS
- (d) LEO and MEO system.