

Total No. of Questions : 6]

SEAT No. :

**P285**

**Oct./BE/Insem.-603**

[Total No. of Pages : 1

**B.E. (Computer Engineering)**

**MOBILE COMMUNICATION**

**(2015 Pattern) (Semester - I) (Elective - I)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

**Q1)** a) Explain the generations of Cellular network (1G, 2G, 2.5G, 3G, 4G & 5G) with respective standards. [6]

b) Explain Role of Mobile Switching Center. [4]

OR

**Q2)** a) What is the 700 MHz band and what is it used for? How can this help consumers. [6]

b) What is S/N Ratio. How do you calculate SN ratio? [4]

**Q3)** a) What is Co-channel Interference and give two major cellular interference. [6]

b) Explain need of frequency reusability in cellular network. What would be the minimum distance between the center of two cells with the same band of frequencies if cell radius is 1KM and the reuse factor is 12. [4]

OR

**Q4)** a) Explain mobility Management in GSM with suitable diagram. [6]

b) Explain Following terms in detail. [4]

- i) TDMA
- ii) SDMA

**Q5)** a) Explain GMSK Modulation in detail. [6]

b) Explain Channel Planning, and Cell Splitting. [4]

OR

**Q6)** a) Write a short note on: [6]

- i) OFDM
- ii) 8PSK

b) As the signal travels the distance its power becomes weaker - justify, also explain wireless communication problems. [4]

