

Total No. of Questions :8]

SEAT No. :

**P3341**

**[5670]-610**

[Total No. of Pages :2

**B.E. (E&TC)**

**MOBILE COMMUNICATION**

**(2015 Pattern) (404189) (End Sem)**

*Time : 2½Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data, if necessary.

**Q1) a)** With neat diagram explain two stage networks operation for voice transmission. [8]

b) Describe the operation of packet switching techniques for Data transmission. [8]

OR

**Q2) a)** Group of 18 trunks provide grade of services of 0.01 when offered 15 E of traffic. [8]

i) How much is grade of service improved if one trunk is added to the group.

ii) How much grade of service deteriorate if one trunk is out of service.

b) Write short note on common channel signalling. [8]

**Q3) a)** What are various radio transmission parameters mentioned them with their specifications. [9]

b) Classify and list out GSM control channels. [9]

OR

**Q4) a)** Draw block diagram of GSM system Architecture. Explain the functions of MSC, BSC and VLR. [9]

b) Describe GSM interfaces with neat diagram. [9]

**P.T.O.**

- Q5) a)** Explain in brief GSM burst structures. [10]  
**b)** With neat diagram explain hand over mechanism in GSM [8]

OR

- Q6) a)** Compare TDMA, CDMA and OF DMA multiple access techniques for GSM. [8]  
**b)** With diagram, Explain GPRS system Architecture and list logical channels used is GPRS. [10]

- Q7) a)** Describe with neat diagram frame structures in LTE. [9]  
**b)** Explain with diagram, the working operation of LTE network structure.[9]

OR

- Q8) a)** Explain with neat diagram, open wireless Architecture of 5G system.[9]  
**b)** List out various challenges and requirements for 5G service. [9]