Course: B. Tech.   Branch : Electronics Engineering   Semester :VII

Subject Code & Name: Wireless Communication (BTEXPE704D)

Max Marks: 60   Date: 07/02/2023   Duration: 3 Hr.

Instructions to the Students:

1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Use of non-programmable scientific calculators is allowed.*
4. *Assume suitable data wherever necessary and mention it clearly.*

		Marks
Q. 1	**Solve Any Two of the following.**	**12**
A)	What is Handoff? Explain different types of handoff in detail.	**6**
B)	Explain co-channel interference and derive the co-channel interference reduction Factor.	**6**
C)	A mobile operator has a total bandwidth of 10 MHz available for the GSM system. In GSM, each channel occupies 200 kHz band, compute the number of channels available per cell if a system uses 3 cell clusters.	**6**
Q.2	**Solve Any Two of the following.**	**12**
A)	Draw the Architecture of GSM & explain its any two channels in detail	**6**
B)	Draw the Frame structure for GSM and explain it in brief.	**6**
C)	Explain the architecture of GPRS with neat diagram	**6**

Q. 3	Solve Any Two of the following.	12
A)	Explain the principle of OFDM with block diagram	6
B)	What is Windowing technique? Explain in brief.	6
C)	Explain Bluetooth technology with neat diagram	6
Q.4	Solve Any Two of the following.	12
A)	Draw and explain DSSS System	6
B)	What is the use of RAKE receiver in CDMA? Explain with diagram.	6
C)	Write a Short note on Wireless Sensor Networks	6
Q. 5	Solve Any Two of the following.	12
A)	What are the types of CDMA Channels? Explain any one in detail	6
B)	Explain Forward Link Features of CDMA.	6
C)	What is Wi-Fi? How does it works?	6
	*** End ***	