



USN

--	--	--	--	--	--	--	--	--	--

10EC81

Eighth Semester B.E. Degree Examination, Jan./Feb. 2021

Wireless Communication

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. With a neat flow diagram, explain AMPS mobile terminated call. (07 Marks)
b. Explain the working of SS7 system with a neat diagram. (07 Marks)
c. Explain the 3G characteristic by cell size and its data rate. (06 Marks)
- 2 a. Explain global title and global title translation. (05 Marks)
b. With a neat block diagram, explain the subscriber device. (08 Marks)
c. With a neat block diagram, explain wireless cellular system components. (07 Marks)
- 3 a. Explain the different capacity expansion techniques, used in cellular system with neat diagrams. (09 Marks)
b. Write a short note on channel allocation scheme used in cellular system. (03 Marks)
c. Discuss the concept of power management as applied to Wireless Communication system. (08 Marks)
- 4 a. Explain GSM channel concept. (10 Marks)
b. Explain GSM signaling model with a neat diagram. (10 Marks)

PART – B

- 5 a. What are GSM identities and explain GSM call setup operation using the MSRN with a neat diagram. (06 Marks)
b. Mention different call setup operations in GSM system and explain GSM authentication operation with a neat flow diagram. (08 Marks)
c. Define handoff technique. Mention different types of handoff technique and explain GSM intra-BSC hand over. (06 Marks)
- 6 a. With a neat diagram, explain CDMA paging channel signal generation. (06 Marks)
b. Explain CDMA mobile station initialization. State with neat block diagram. (06 Marks)
c. What is the difference between soft-soft handoff, soft handoff and softer handoff in CDMA system? Explain the same. (08 Marks)
- 7 a. List the various diversity techniques used in Wireless Communication and explain RAKE receiver with a neat block diagram. (10 Marks)
b. Explain multipath and Doppler effect for wireless mobile system. (06 Marks)
c. Briefly explain block interleaving technique used by mobile wireless system. (04 Marks)
- 8 a. Explain Bluetooth piconet architecture. (10 Marks)
b. With a neat diagram, explain IEEE 802.15.1 Bluetooth WPAN architecture. (10 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.