

M.Tech.

WIRELESS AND MOBILE COMMUNICATION

SUBJECT CODE : EC - 520 (Elective - III)

Paper ID : [E0577]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 100

Instruction to Candidates:

- 1) Attempt any **Five** questions.
- 2) **All** questions carry equal marks.

Q1) (a) Define channel capacity and discuss the key factors that affect it?
(b) Differentiate between guided and unguided media?

Q2) (a) Explain the difference between virtual channel and virtual path?
(b) What are some of the limitations of using circuit switching networks for data transmission?

Q3) (a) What is a parabolic antenna and what are its advantages?
(b) What is fading? What is the difference between fast and slow fading?

Q4) (a) What is NRZ-L? What is the major disadvantage of this data encoding approach?
(b) Explain how Go-Back-N ARQ works?

Q5) (a) What are relative advantages and disadvantages of MMDS compared to LMDS?
(b) Discuss the security services provided by WTLS?

Q6) Describe with block diagram IEEE 802.11 architecture? Also explain its services?

Q7) (a) Discuss network layer of CDMA?

(b) Explain various voice applications in CDMA system?

Q8) (a) Describe with block diagram GSM architecture and interfaces?

(b) How speech coding is done in GSM?

