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MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University



**FOURTH SEMESTER B.TECH (E & C) DEGREE END SEMESTER EXAMINATION
MAY/JUNE 2016**

SUBJECT: INTRODUCTION TO COMMUNICATION SYSTEM (ECE - 3283)

TIME: 3 HOURS

MAX. MARKS: 50

Instructions to candidates

- Answer **ALL** questions.
- Missing data may be suitably assumed.

- 1A. Name the four main elements of a communication system. Draw a diagram that shows their relationship.
1B. Explain any three different types of multiplexing used in communication system.
1C. Draw neatly the Electromagnetic spectrum band width used in electronic communication.
(5+3+2)
- 2A. What type of transmitter (microphone) is used in a standard telephone, and how does it work?
2B. Explain with neat block diagram DTMF type of telephone.
2C. What is the most common transmission medium for fax signals? What other medium is commonly used?
(5+3+2)
- 3A. Explain the different types of optical fibre depending on refractive index of the material used.
3B. What are the two main types of light sources used in optical communication systems? Which is preferred and why?
3C. Name three parts of optical spectrum.
(5+3+2)
- 4A. With a neat block diagram, explain the architecture of GSM system and the various entities in it.
4B. Explain the two principles that are used in cellular communication system.
4C. Explain any two wireless LAN standards used with respect to multiple access and the modulation scheme used.
(5+3+2)
- 5A. With a neat block diagram, explain the RADAR communication system and various entities in it
5B. Explain any two near field communication system used in detail.
5C. What is RFID and explain any two applications of RFID.
(5+3+2)