

B.TECH. DEGREE EXAMINATION, NOVEMBER 2010**Fifth Semester**

Branch — Computer Science and Engineering / Information Technology

DATA COMMUNICATION (RT)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A*Answer all questions.**Each question carries 4 marks.*

1. (a) Define modulation index with respect to an Amplitude modulated wave.
- (b) Define sampling theorem.
- (c) What is the need for multiplexing techniques in data communication ?
- (d) Define 'Channel capacity' in data transmission.
- (e) Differentiate between serial and parallel method of data transmission.
- (f) How is asynchronous mode of data transmission different from isochronous mode ?
- (g) What is the significance of using different coding techniques ?
- (h) Differentiate between EBCDIC and ASCII code.
- (i) What is meant by point to point communication ?
- (j) What is the importance of GSM architecture ?

(10 × 4 = 40 marks)

Part B*Answer either (a) or (b) part from each question.**Each question carries 12 marks.*

2. (a) Briefly describe the different analog modulation techniques with waveforms.
Or
(b) PCM is different from other forms of pulse modulation techniques. Explain.
3. (a) Compare the different digital modulation techniques based on different criteria.
Or
(b) What is Multiplexing ? Explain the different types of multiplexing techniques used in data communication.

Turn over

4. (a) Differentiate between the different types of switching used in data communication.

Or

(b) Describe the different ways in which digital data can be transmitted.

5. (a) Differentiate between Hamming code and Block code in all aspects.

Or

(b) Explain in detail how ARQ techniques are implemented in data communication.

6. (a) Describe how a computer communicates with other computers.

Or

(b) Explain in detail about the different transmission media through which data can be communicated.

Time :'

(5 × 12 = 60 marks)

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