Total No. of Questions :5]   [Total No. of Printed Pages : 2

Roll No ....

IT - 501

B.E. V Semester
Examination, June 2015

Data Communication

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) Define
   i) Attenuation   ii) Distortion.
   b) What is the difference between bit rate and band rate?
   c) Define the term frequency and period of a signal?
   d) What is Nyquist theorem? Explain with examples?

   OR

   Define Digital Signal. What are the key advantages of digital signal over analog signal?

Unit - II

2. a) Define :
   i) Non-return to zero codes
   ii) RZ Codes
   b) List out the difference between serial and parallel transmission.
   c) What are the advantages of Asynchronous transmission over synchronous transmission?

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d) Write short notes on:
   i) Simplex Transmission
   ii) Full Duplex Transmission
   iii) Half Duplex Transmission

   OR

   What is line configuration? Explain with examples?

Unit - III

3. a) Define PCM (Pulse Code Modulation)?
   b) Explain Synchronous Digital Hierarchy (SDH)?
   c) Write short notes on SDSL?
   d) What is wave length Division Multiplexing? Explain its application area?

   OR

   Explain SS7 Signalling with examples?

Unit - IV

4. a) Define Hybrid Switching?
   b) What is vertical Redundancy Check (VRC)?
   c) What are the methods available for error detection?
   d) Discuss ISDN Services?

   OR

   Explain ISDN reference points?

Unit - V

5. a) Define RJ-45?
   b) Define STP (Shielded Twisted Pair)?
   c) List out the advantages of Micro wave transmission?
   d) Define Cable Standards? Explain Cat-5 Cable with example?

   OR

   What is Network Interface Card (NIC)? Explain the working of NIC?

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