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

Roll No ....

CS-501
B.E. V Semester
Examination, December 2016
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 question 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) What are the components of data communication?
   b) Draw and explain properties of Bipolar line coding.
   c) Differentiate between serial and parallel transmission.
   d) What is Data compression? Explain the various technique of data compression. Also explain its importance.

   OR

   Differentiate between an analog and a digital transmission methods.

Unit - II

2. a) What is frequency Hopping?
   b) Define polling.
   c) Difference between circuit switching and packet switching.
   d) Describe ISDM in detail.

   OR

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What is Multiplexing? In what situation multiplexing is used? Also distinguish between synchronous and statistical TDM.

Unit - III

3. a) Write the function of Repeater.
   b) What is the key advantage of BMC connecter?
   c) Write uses of
      i) RJ-45
      ii) RJ-11
   d) What is network topology? Explain its types with the help of diagram. Also describe its merits and demerits.

   OR

   What are different network devices? Explain about its uses in detail.

Unit - IV

4. a) What is Crosstalk? How it is prevented?
   b) Explain about Electronic spectrum.
   c) Explain Satellite Communication system.
   d) What is Guided media? Enlist them and explain in detail.

   OR

   Compare HDSL, SDSL and VDSL.

Unit - V

5. a) Describe flow Integrity Error.
   b) What are Hamming codes?
   c) Explain Redundancy check in short.
   d) Discuss the various error detection and correction method.

   OR

   What is CRC? Explain CRC with suitable example.

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