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Roll No.....

IT-501 (GS)
B.E. V Semester
 Examination, December 2017
Grading System (GS)
Data Communication

Time : Three Hours

Maximum Marks : 70

- Note:** i) Answer any five questions.
 ii) All questions carry equal marks.

1. a) What do you know about Attenuation, distortion and noise? 7
 b) Explain the terms Bandwidth, throughput and jitter. 7
2. a) With the help of suitable diagrams explain simplex duplex and half duplex transmissions. 7
 b) What do you mean by line codes? Explain unipolar and polar line codes and NRZ and RZ line codes. 7
3. a) Why modulation is needed? Explain pulse code modulation scheme. 7
 b) What is multiplexing? Why multiplexing is important? Describe TDM, FDM and WDM schemes. 7
4. a) What is ISDN? Explain the services offered by ISDN. 7
 b) Explain single bit error and burst error. Explain any one method of error detection. 7

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5. a) What do you mean by Digital Subscriber Line? Explain ADSL and SDSL. 7
 b) Explain circuit, message and packet switching techniques. 7
6. a) Explain the concept of cyclic redundancy check. 7
 b) Explain the electromagnetic spectrum used for electronic transmission. 7
7. a) What do you mean by guided and unguided transmission media? Explain with examples. 7
 b) Explain the principle of operation of optical fiber. What are the merits and demerits of optical fiber communication. 7
8. Write short notes on any two: 14
 a) Network interface card
 b) MODEM
 c) Bit rate and band rate
 d) RJ-45 connection

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