

Roll No.

2012

B. E. 3rd Semester (I. T.)
Examination – December, 2012

DIGITAL & ANALOG COMMUNICATION

Paper : EE-217-E

Time : Three hours]

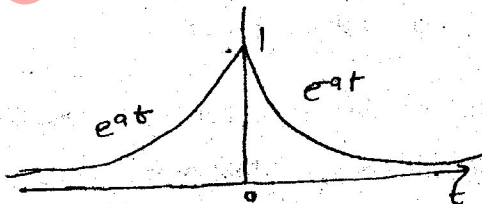
[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions out of eight questions.
All questions carry equal marks.

1. Determine the Fourier transform for the double exponential pulse shown below whose function is given by : 15

$$X(t) = e^{-9|t|}$$



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2. (a) Explain the properties of signals.
- (b) Draw and explain the block diagram of communication system in detail. 20
3. To transmit a bit sequence 10011011. Draw the resulting wave form using. 20
- (i) Unipolar RZ
- (ii) Unipolar NRZ
- (iii) Bipolar RZ
- (iv) AMI RZ
- (v) Manchester
4. Explain with a neat diagram the working and classical connections of RS - 232. 20
5. Explain the following protocol with the help of examples : 20
- (i) Stop and wait protocol
- (ii) Sliding window protocol
6. Explain the difference between time division and frequency division multiplexing. 20

7. Explain :

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- (i) Error correction hamming code
- (ii) Cyclic Redundancy Check (CRC)

8. Write short notes on the following :

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- (i) Data Compression
- (ii) Types of Transmission media