

UNIT - IV

8. Discuss various error detection and correction techniques. Give out advantages and disadvantages of each one. 20
9. Write short notes on the following :
- (a) Huffman encoding. 10
- (b) Public key cryptography. 10

Roll No.

RE-24042

B. Tech. 3rd Sem. (CSE)
Examination – January, 2016
DIGITAL ANALOG COMMUNICATION

Paper : EE-217-F

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 five questions in all. Selecting one questions from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Enumerate necessary conditions for Fourier series expansion of a signal. 3
- (b) Difference between even and odd signal. 2
- (c) Give out advantages of optical fiber cable. 3

RE-24042-8350-(P-4)(Q-9)(16)

RE-24042-8350-(P-4)(Q-9)(16) (4)

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- (d) State Nyquist criteria. 2
- (e) Difference between Simplex and Half duplex communication system. 5
- (f) Discuss Block sum check method. 5

UNIT - I

2. (a) What do you understand by communication system? Discuss various means of communication system. 10
- (b) Differentiate between analog and digital communication system. Also give out advantages of Digital communication system. 10
3. (a) Find out Fourier series expansion of a signal given by $x(t) = 2 \sin 2\pi(t)$ where $0 < t < 2$. 10
- (b) Discuss effects of bandwidth in digital communication system. 10

UNIT - II

4. (a) Why modulation is required in communication system? Enumerate difference between AM and FM. 10

RE-24042-8350-(P-4)(Q-9)(16) (2)

- (b) Write briefly about Manchester encoding scheme. Also draw the waveform. 10
5. (a) Explain the working of coaxial cable as wireline communication medium. Also give out its advantages. 10
- (b) Explain in details RS 232 physical layer interface. 10

UNIT - III

6. Give out difference and advantages/disadvantages of the following :
- (a) Synchronous and Asynchronous transmission. 10
- (b) Connectionless and connection oriented transmission. 10
7. (a) Write in details about PSTN system with the help of block diagram. 10
- (b) Discuss in details FDM. 10

RE-24042-8350-(P-4)(Q-9)(16) (3)

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