

B.TECH DEGREE EXAMINATION, MAY 2013

Fourth Semester

Branch : Computer Science and Engineering

CS 010 404-SIGNALS AND COMMUNICATION SYSTEMS (CS)

(New Scheme-2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours Maximum:100 Marks

Part A

Answer **all** questions.

Each question carries 3 marks.

1. Write short notes on Quantisation.
2. Describe different communication channels.
3. Explain about Sample problems based on different modulation methods.
4. Compare Datagram's and virtual circuits.
5. What is Bar code?

(5*3=15 marks)

Part B

Answer **all** questions.

Each question carries 5 marks.

6. List the different types of signals and explain its properties.
7. Explain signal propagation delay and attenuation .
8. Explain pulse width modulation.
9. Describe in detail Wavelength division multiplexing.
10. Explain convolution coding.

(5*5=25 marks)

Part C

Answer **all** questions.

Each full question carries 12 marks.

11. (a) Explain sampling theorem with necessary diagrams.

Or

- (b) Determine the Fourier transform of the signal.

12. (a) Draw and explain the Architecture of a Typical communication system. And

explain the different types of noise.

Or

(b) Explain in detail different types of communication channels.

13. (a) Explain any *three* types of Pulse modulation techniques.

Or

(b) Explain the following types of modulation schemes (PSK,DPSK)

14. (a) Explain various switching methods.

Or

(b) Explain with block diagram Time Division Multiplexing (TDM) (Transmitter and Receiver section).

15. (a) Write the following error correction and detection code with example:

Line coding schemes, block coding

Or

(b)Write short notes on ASCII, EBCDIC, Bar coding and Baudot coding

(5*12=60 marks)