LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. & B.C.A. DEGREE EXAMINATION – **COMPUTER SCIENCE & APPLI.**

FIFTH SEMESTER – NOVEMBER 2015

CS / CA 5404 - DATA COMMUNICATION & NETWORKS

Date : 13/11/2015 Dept. No. Max. : 100 Marks

Time : 09:00-12:00

SECTION-A

ANSWER ALL THE QUESTIONS: **(10 X 2 = 20)**

1. What is Data communication?
2. Expand ITU-T, ISO.
3. Differentiate Digital and Analog signals.
4. Enumerate the functionalities of Session Layer.
5. Represent 10100101 using NRZ-L and NRZ-I encoding method.
6. What is DTE-DCE interface?
7. What is tropospheric propagation?
8. State the role played by MTSO.
9. What is Many-to-one multiplexing?
10. Give an example for Burst Error.

SECTION-B

ANSWER ALL THE QUESTIONS: **(5 X 8 =40)**

11. a) Discuss in brief about the components of a communication system with a diagram.

(OR)

b) Define a Protocol and explain its key elements.

12. a) Explain composite signals with a frequency domain plot.

(OR)

b) Differentiate Periodic and Aperiodic signals.

13. a) Explain Bipolar digital to digital encoding with examples.

(OR)

b) Compare Parallel and Serial Digital data transmission with diagrams.

14. a) Explain in brief about the Modem Standards.

(OR)

b) Discuss in brief about Satellite communication.

15. a) Discuss about Cyclical Redundancy check with an example.

(OR)

b) Discuss about Frequency Division multiplexing with example diagrams.

SECTION-C

ANSWER ANY TWO QUESTIONS: **(2 X 20 = 40)**

16. (a) Elaborate the different types of topologies with its advantages and disadvantages. **(10)**

    (b) Explain the functioning of Physical, Transport and Presentation layers of OSI Model with a neat diagram. **(10)**

17. (a) Elaborate about Analog to Analog encoding. **(10)**

    (b) Discuss about the different types of guided media with diagrams. **(10)**

18. (a) Elaborate about Hamming code Error correction method with an example. **(10)**

    (b) Discuss about Time division multiplexing with neat diagrams. **(10)**

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