# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

B.Sc., B.C.A.DEGREE EXAMINATION - COMPUTER SCIENCE& COMP. APP.

FIFTHSEMESTER – APRIL 2018

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## CS/CA 5404- DATA COMMUNICATION & NETWORKS

Date: 10-05-2018	Dept. No.	Max. : 100 Marks
Time: 09:00-12:00		

#### **PART-A**

#### **Answer all the questions:**

10X2=20 Marks

- 1. Define the term data communication.
- 2. What is line configuration?
- 3. List the responsibilities of transport layer.
- 4. Write the difference between analog signal and digital signal.
- 5. What is Bipolar encoding?
- 6. Define the term DCE and DTE.
- 7. List the difference between serial transmission and parallel transmission.
- 8. Write about step index and graded index mode.
- 9. What is multiplexing?
- 10. List out the types of error.

#### **PART-B**

### **Answer all the questions:**

**5X8=40 Marks** 

11. a) Write the components of data communication with a neat diagram.

(OR)

- b) Write in brief about categories of network with examples.
- 12. a) Write the functions of physical layer and data link layer.

(OR)

- b) Write in brief about simple analog signal.
- 13. a) List the difference between Manchester and differential Manchester encoding.

(OR)

- b) Explain in brief about EIA 232 standards.
- 14. a) Write in short about X series modem.

(OR)

- b) Write the difference between guided and unguided transmission medium.
- 15. a) Write in short about the time division multiplexing with an example.

(OR)

b) Write about error correction with an example.

### **PART-C**

# **Answer any two questions:**

2X20=40 Marks

- 16. a) Discuss in detail about topologies with examples.
  - b) Explain in detail about digital signals with an example.
- 17. a) Discuss in detail digital to digital encoding.
  - b) Write about the different types of propagation utilized by radio transmission.
- 18. a) Explain in detail about any two error detection methods.
  - b) Discuss the working of internet.

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