

**R16**

Code No: 136FT

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, May - 2019****PRINCIPLES OF COMPUTER COMMUNICATIONS AND NETWORKS****(Common to CE, EEE, ME, CSE, IT)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****(25 Marks)**

- 1.a) What is computer communication system? [2]
- b) List the uses of computer in communication. [3]
- c) What are the advantages of multiplexing? [2]
- d) Give a note on application layer protocol. [3]
- e) How are analog signals transmitted? [2]
- f) What is analog signal in data communication? [3]
- g) Write the main functions of the data link layer. [2]
- h) List the different types of wireless communication with applications. [3]
- i) What are connectors? [2]
- j) Draw the bridge protocol architecture. [3]

**PART - B****(50 Marks)**

- 2.a) List and explain the types of computer networks.
  - b) Explain the telephone system and data communications. [5+5]
- OR**
- 3.a) Give a brief note on network standards.
  - b) Describe the applications of networks. [5+5]
4. List and explain the OSI References models in detail. [10]
- OR**
- 5.a) Explain the communication service methods and data transmission modes.
  - b) Discuss the analog and digital communications. [5+5]
6. List and explain the characteristics of analog signals. [10]
- OR**
- 7.a) Why are digital signals better than analog signals? Explain.
  - b) How do you convert analog signal to digital signal? Discuss. [5+5]

8. Explain the physical and electrical characteristics of wire. [10]

**OR**

9. Draw and explain the fiber optic media. [10]

10.a) Compare and contrast Switches Vs Routers.

b) Give a brief note on repeaters. [5+5]

**OR**

11. List and explain the types of In-Device and Inter-Device Connectors. [10]

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