Code No: 5404CZ

R17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech II Semester Examinations, December – 2018/January - 2019
PRINCIPLES OF COMPUTER COMMUNICATIONS AND NETWORKS
(Common to CNIS, CS, CSE, EPE, EPS, IT, PEED)

Time: 3hrs **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

5 × 5 Marks = 25

1.a) What is a computer network? Describe it in terms of nodes, media and protocols used. [5]
b) Describe the differences among decentralized, centralized and distributed computing. [5]
c) Describe analog to digital conversion process. [5]
d) Describe the operation of the physical layer relative to the OSI reference model. [5]
e) What is a bridge? Compare bridges and repeaters. [5]

PART - B

5 × 10 Marks = 50

2. Describe the following:
a) Addressing
b) Routing
c) Security. [10]

OR

3. Why are network standards important? Briefly describe various standards. [10]

4. What are the methods in which data can be transmitted between source and destination nodes? Describe each in detail. [10]

OR

5. Describe the concept of switching and contrast the commonly used switching methods. [10]

6. Differentiate bit rate and baud rate. Describe various digital carrier systems. [10]

OR

7. Describe methods used to convert digital data analog signals. [10]

8. Compare radio transmission and infrared transmission systems. [10]

OR

9. Describe how Cyclic Redundancy Code (CRC) is used for error detection with an appropriate example. [10]

10. Describe different switches. [10]

OR

11. When do you think a bridge is more appropriate to use than a repeater? Explain how bridges can be used to filter traffic. [10]

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