

R17

Code No: 5404CZ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M. Tech II Semester Examinations, June/July - 2019

PRINCIPLES OF COMPUTER COMMUNICATIONS AND NETWORKS

(Common to CSE, PE, PE&ED, IT, PE&ES, CN&IS, EPE, CS, EPS)

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) Explain the difference between the data communications and telecommunications. [5]
- b) Contrast bandwidth and throughput. [5]
- c) Explain the concepts of data rate and baud rate. [5]
- d) Discuss the two factors of physical media that can negatively impact data transmission. [5]
- e) Explain the operation of transceivers. [5]

PART - B**5 × 10 Marks = 50**

- 2.a) Classify the networks by their topology?
 - b) Describe the difference between the WAN's and GAN's and give an example. [5+5]
- OR**
- 3.a) What is meant by Newton Addressing? Explain with examples.
 - b) Discuss the essential elements of any network: medium and protocols. [5+5]
4. Describe the seven layers of the OSI model. [10]
- OR**
- 5.a) Contrast between the client/server model or the peer to peer model.
 - b) Discuss the difference between the analog and digital communications. [5+5]
- 6.a) Discuss the Nyquist theorem.
 - b) Explain the T1 digital carrier scheme. [5+5]
- OR**
- 7.a) Explain the operation of modem and codec.
 - b) Briefly explain the ASK and FSK techniques. [5+5]
8. What are the two general types of wireless communications? Explain each one in detail. [10]
- OR**
9. Describe the concepts of framing, flow control and error control. [10]

- 10.a) Distinguish between various types of PC cards.
b) Explain the primary difference between the repeaters, bridges and switches. [5+5]

OR

- 11.a) What is the purpose of BNC terminator? Discuss.
b) Write the advantages and disadvantages of having NIC built in to the mother board of a computing device instead of add on component. [5+5]

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