Code No: 823AE

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA III Semester Examinations, August - 2017
COMPUTER NETWORKS

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 Hamming code? How it is useful in computer networks?   [5]
  b) Write the functions of MAC and LLC.   [5]
  c) What is optimality principle in routing? Explain briefly.   [5]
  d) Describe in detail about tunneling.   [5]
  e) Compare TCP and UDP.   [5]

PART - B

5 × 10 Marks = 50

2. Describe the layers of OSI reference model and compare it with TCP model.   [10]
OR
3.a) Explain stop and wait protocol in detail.
  b) Explain, How flow control is achieved in data link layer?   [5+5]

4. Explain in detail about ALOHA protocol.   [10]
OR
5.a) Describe MAC protocol operations on a token ring.
  b) Give a note on frame formats of token ring.   [5+5]

6.a) What is flooding and describe reliable flooding.
  b) Describe hierarchical routing.   [5+5]
OR
7. Explain in detail about link state routing algorithm.   [10]

8. Describe Address resolution protocol in detail.   [10]
OR
9.a) Describe dynamic host congestion protocol in detail.
  b) Write the services of transport layer.   [5+5]

10. Describe TCP header in detail.   [10]
OR
11. Write short notes on
     a) TELNET
     b) SMTP protocol.   [5+5]

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