R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech III Year I Semester Examinations, November - 2015
COMPUTER NETWORKS
(Common to 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 are the issues in data link layer?   [2]
  b) How Internet is administered?   [3]
  c) What is a switch?   [2]
  d) Explain spanning tree bridge.   [3]
  e) What is optimality principle?   [2]
  f) Explain datagram subnet.   [3]
  g) What is crash recovery?   [2]
  h) Explain packet fragmentation.   [3]
  i) What is electronic mail?   [2]
  j) What is TELNET?   [3]

PART - B (50 Marks)

2.a) Compare OSI and TCP/IP reference model.
  b) Discuss about Internet standards.   [5+5]
                                          OR
3.a) Describe guided transmission media.
  b) Explain the algorithm for CRC method of error checking.   [5+5]

4.   In detail, explain the various ALOHA protocols.   [10]
                                          OR
5.a) Explain fast Ethernet and gigabit Ethernet.
  b) Using hub, bridge, switches and router, build a network and explain the network. [5+5]

6.   With an example, explain shortest path routing.   [10]
                                          OR
7.a) What is count-to-infinity problem? Explain.
  b) Explain the congestion prevention policies.   [5+5]

8.   Explain the following protocols:
     a) RARP
     b) DHCP.   [5+5]
                                          OR
9.a) What are the services provided by transport layer to the upper layers?
  b) Explain the connection establishment release in transport layer.   [5+5]

10.a) Explain the real time transport protocol.
  b) Explain the TCP transmission policy. [5+5]

OR

11.a) Explain TCP congestion control.
  b) Write short notes on:
    i) DNS
    ii) FTP. [5+5]

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