

Code No: 115DT

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 and 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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