END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY- JUNE 2014

Paper Code: BCA-210	Subject: Computer Networks (Batch 2011)
Time: 3 Hours	Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory.
Select one question from each Unit.

Q1 (a) Define computer network. Explain different types of networks.
    (b) What are the connection less and connection oriented services?
    (c) Differentiate between CAN, MAN and WAN.
    (d) Differentiate between simplex, half duplex & full duplex transmission modes.
    (e) How TCP provides reliability in the network.
    (f) What is the difference between physical & logical address?
    (g) Discuss UDP datagram format.
    (h) Why is IP called best effort delivery protocol?
    (i) Differentiate between Broadcast, Multicast & Unicast.
    (j) How router boots up.   (10x2.5=25)

Unit-I

Q2 (a) Define Shannon Capacity theorem.   (2.5)
    (b) Differentiate between guided ad unguided transmission media. Explain in detail.   (10)

Q3 (a) Discuss 4 different topologies in detail with examples.   (4)
    (b) Compare OSI and TCP/IP models. Discuss different layers & their functions briefly.   (8.5)

Unit-II

Q4 (a) Differentiate between Circuit Switching & Packet Switching.   (6)
    (b) Discuss ISDN, its services & layers.   (6.5)

Q5 (a) Are the flow control & error control mechanism handled at the Data Link Layer? If yes, describe the techniques with which it can be handled. If no, explain with appropriate reasons.   (8)
    (b) Differentiate between WDM, TDM & FDM.   (4.5)

Unit-III

Q6 (a) Define repeaters, bridges, gateways & routers.   (2)
    (b) Show the header format for IPv4 & explain the function of each field.   (10.5)

Q7 (a) Distinguish between distance vector & link state routing. Explain with examples.   (8.5)
    (b) Differentiate between static & dynamic routing.   (4)

Unit-IV

Q8 (a) Compare TCP & UDP protocols.   (4)
    (b) Explain TCP packet format in detail.   (8.5)

Q9 (a) What are the functions of session layers, presentation layers & application layers in OSI model?   (6)
    (b) Explain three way handshaking in TCP.   (6.5)

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