Code No: C5504 **R09**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY-2012
ADVANCED COMPUTER NETWORKS
(EMBEDDED SYSTEMS)

Time: 3hours **Max.Marks:60**

Answer any five questions
All questions carry equal marks

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1.a) What is congestion? Explain.
b) Compare open loop and closed loop congestion control mechanisms.
c) What is queue management? Explain.

2.a) Explain the following
i) Resource reservation
ii) Integrated and differential services.
b) Compare and constrast infrastructure networks with adhoc networks.

3.a) Explain the role of medium access control layer protocol.
b) Discuss the DCF access mechanism used in IEEE 802.11 WLAN.

4.a) Briefly explain what happens to the cell size if each user needs to double the data rate.
b) Describe briefly the principle of frequency reuse in the context of a cellular network. Can the same frequency be repeated with in a cluster?

5.a) How does VPN guarantee privacy for an organization.
b) What is a VPN and why is it needed?
c) How does VPN provides privacy for LANS communicate through the global Internet.

6.a) Describe the format of an ATM cell.
b) Discuss the issues involved when ATM is used in LANs.
c) What are the various layers of ATM? Discuss their functions.

7.a) Name the four ATM service classes and the type of customer each srves.
b) Discuss the functions of each SONET layer.
c) What kind of encoding is used by SONET?

8. Write short notes on:
a) Bit-allocation algorithm
b) STS multiplexing
c) Crossbar switch

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