MCSE-105
M.E. / M.Tech. (First semester)
EXAMINATION, Dec., 2011
(Garding/Non-Grading)
ADVANCED COMPUTER NETWORKING
(MCSE-105)

Time: three hours Maximum Marks: GS: 70 NGS:100

NOTE-: Attempt any five questions. all questions carry equal marks.

1. (A) explain the concept of subnet addressing. illustrate your answer with the help of an example.
(B) discuss the operating principles of OSI reference model with the help of diagram showing headers and trailers added as the block of user data mover.

2. (A) why do HTTP, FTP, SMTP, POP3 and IMAP run on top rather than on UDP ?
(B) discuss the network topologies commonly used in LAN. list the factors that affect the choice of a topology and transmission medium in a LAN.

3. (A) describe how web caching can reduce the delay in receiving a requested object. will web caching reduce the delay for all objects requested by a user or for only some of the object? why?
(B) what is an important difference between a request response message and trap message in SNMP ? what are the seven message types used in SNMP ?

4. (A) explain how packets are exchanged between client and server in STMP.
(B) differentiate between OSPF and BGP.

5. (A) what are the advantages provided by CIDR technology ? what prevents its wide-spread use?
(B) make comparison of IPv6 and IPv4.

6. (A) what properties of truly private networks can be supported by VPNs ? which VPN technologies use traffic segregation for ensuring security?
(B) explain the functional grouping of network management. also give the functional flowchart.

7. (A) bluetooth suppon two types of links between a master and a slave. what are they and what is each one used for?

(B) give two reasons why networks might use an error-correcting code instead of error-detection and retransmission.

8. (A) write short notes on the following :
(1) VOIP
(2) MIME
(3) GSM
(4) DVMRP.