Register Number: ……..

B.E/B.TECH., DEGREE EXAMINATIONS: NOV/DEC 2012

Fifth Semester

ITY104: COMPUTER NETWORKS

(Common to Computer Science and Engineering and Information Technology)

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 1 = 10 Marks)

1. A tree topology is a variation of _____ topology.
   a) Mesh b) Star
   c) Bus d) Ring
2. The end-to-end delivery of the entire message is the responsibility of the _____ layer.
   a) Network b) Transport
   c) Session d) Presentation
3. Which error detection method uses one's complement arithmetic?
   a) VRC b) LRC
   c) CRC d) Checksum
4. The secondary device in a multipoint configuration sends data in response to
   a) An ACK b) An ENQ
   c) A poll d) A SEL
5. In Link state routing, flooding allows changes to be recorded by _____
   a) All routers b) Neighbor routers only
   c) Some routers d) All networks
6. Routers function in the _____ layers
   a) Physical and data link b) Physical, data link and network
   c) Data link and network d) Network and transport
7. Which of the following applies(y) to both UDP and TCP?
   a) Transport layer protocols b) Port-to-port communication
   c) Services of IP layer used d) All of the above
8. Error control is needed at the transport layer because of potential errors occurring.
   a) From transmission line noise b) In routers
   c) From out-of-sequence delivery d) From packet losses
9. A _____ is an application program that can represent and locate objects in a directory.
   a) MHS b) FTAM
   c) DS d) CMIP

10. A _____ can transform a non-SMTP mail to SMTP format and vice-versa.

a) Mail spool
b) Mail gateway
c) Mail file
d) Mail exchanger

PART B (10 x 2 = 20 Marks)

11. What are the drawbacks of bus topology?
12. What are the different types of cabling supported by Ethernet standard?
13. List out the responsibilities of data link layer?
14. What is IEEE 802.4 Standard?
15. State the difference between classless and classful addressing.
16. Define Packet Switching.
17. Why transport layer protocols like TCP and UDP are called end-to-end protocols? What are the differences between them?
18. What are the methods to improve QoS?
19. What is the function provided by FTP?
20. Define Firewalls.

PART C (5 x 14 = 70 Marks)

21. a) (i) Explain the categories of networks in detail. (6)

(ii) Describe the different topologies of the network. (8)

(OR)

b) Perform a comparative study between the ISO-OSI model and TCP/IP reference model.

22. a) Explain the concept of Error Detection and Correction in detail, with suitable example.

(OR)

b) (i) Write short notes on IEEE 802.11 standard. (8)

(ii) Write short notes on Stop-and Wait ARQ. (6)

23. a) (i) Explain about IP addressing methods in detail. (6)

(ii) Explain Packet Switching in detail. (8)

(OR)

b) Discuss about Distance Vector Routing with an example. What are its limitations and how to overcome it?

24. a) Explain the concept of Transmission Control Protocol in detail.

(OR)

b) (i) Explain the functions of transport layer in detail. (6)

(ii) Write short notes on UDP. (8)

25. a) Explain the concept of DNS in detail.

(OR)

b) Describe the concept of WWW.

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