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5/12/13 AW

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**Question Paper Code : 75549**

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Fifth Semester

Information Technology

XCS 353/10677 SW 502 — COMPUTER NETWORKS

(Common to 5 Year M.Sc. Computer Technology/M.Sc. Software Engineering)

(Regulation 2003/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List down the different encoding strategies.
2. State the features of SONET.
3. What is datagram?
4. Write ATM cell format.
5. Give dotted decimal representation of the IP address.  
11011101    10001111    11111101    00001111
6. Define VPN.
7. What is the need for internetworking?
8. Mention the benefits of source specific multicast.
9. What do meant by silly window syndrome?
10. What is the significance of End-to-end protocols?

PART B — (5 × 16 = 80 marks)

11. (a) (i) With a neat sketch, explain the OSI network architecture in detail. (10)  
(ii) Discuss about byte oriented protocols. (6)  
Or  
(b) (i) Write and explain the internet checksum algorithm. (8)  
(ii) Explain any one automatic repeat request algorithm. (8)

12. (a) (i) Describe about media access control in detail. (8)  
(ii) Explain in detail about fiber distributed data interface. (8)

Or

- (b) (i) With a neat diagram, explain the virtual circuit network. (8)  
(ii) Write and explain the spanning tree algorithm. (8)
13. (a) (i) Describe about address resolution protocol in detail. (8)  
(ii) What is the working principle of dynamic host configuration protocol? Explain. (8)

Or

- (b) (i) Discuss about routing information protocol. (8)  
(ii) Explain the link state routing protocol in detail. (8)
14. (a) (i) What is classless routing? Explain in detail. (8)  
(ii) Discuss the basic idea behind the inter domain routing. (8)

Or

- (b) Explain any two multicast routing in detail. (16)
15. (a) Describe about user datagram protocol in detail. (16)

Or

- (b) With a neat sketch, explain the connection establishment and termination in TCP. (16)