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Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 95401

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Fifth Semester

Software Engineering

XCS 353/10677 SW 502 — COMPUTER NETWORKS

(Common to 5 Year M.Sc. Computer Technology and M.Sc. Information Technology)

(Regulations 2003/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is delay X bandwidth product?
2. What is base line wander?
3. What are the functions of Bridges?
4. What is meant by circuit switching?
5. Mention any two advantages of subnetting.
6. Define unicast, multicast and broadcast.
7. Differentiate between multicast and broadcast.
8. What is subnet? Give an example for subnet address.
9. What do you mean by silly window syndrome?
10. What is the significance of end-to-end protocols?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the OSI reference model with neat diagram. (10)

(ii) Explain NRZ and Manchester encoding schemes. (6)

Or

(b) (i) Explain CRC error detection mechanism with an example. (8)

(ii) Explain in detail about reliable transmission. (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) Explain the user datagram protocol (UDP) in detail. (8)

(ii) What is flow control? Describe in detail. (8)

Or

(b) (i) Describe internet control message protocol. (8)

(ii) Give any one routing algorithm. (8)

14. (a) (i) Draw the update packet format for BGP-4. With an example show how a network runs in BGP. (8)

(ii) Elaborate on link state and distance vector multicast. (8)

Or

(b) What is the need for IPv6? Explain the packet format of IPv6. Explain the address space allocation and address notations in IPv6. (16)

15. (a) Describe in detail User Datagram Protocol (UDP). (16)

Or

(b) With the state transition diagram, explain TCP connection establishment and termination. (16)
