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**Question Paper Code : 77102**

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Fourth Semester

Computer Science and Engineering

CS 6551 — COMPUTER NETWORKS

(Regulation 2013)

Time : Three hours

Maximum 8400 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you mean by error control?
2. Define flow control.
3. What do you understand by CSMA protocol?
4. List the functions of bridges.
5. How does a router differ from a bridge?
6. What are the metrics used by routing protocols?
7. List some of the Quality of Service parameters of transport layer.
8. How does transport layer perform duplication control?
9. Define SMTP.
10. What are the groups of HTTP header?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss in detail about Internet Architecture. (16)
- Or
- (b) What is the need for error detection? Explain with typical examples. Explain methods used for error detection and error correction. (16)

12. (a) Explain in detail about the access method and frame format used in Ethernet and token ring. (16)

Or

- (b) (i) Discuss the MAC layer functions of IEEE802.11 (8)  
(ii) Briefly define key requirements of wireless LAN (8)

13. (a) Explain the shortest path algorithm with suitable illustrations. (16)

Or

- (b) Explain the distance vector routing algorithm. Mention the limitations of the same. (16)

14. (a) Explain the various fields of the TCP header and the working of the TCP protocol. (16)

Or

- (b) (i) Explain the three way handshake protocol to establish the transport level connection. (8)  
(ii) List the various congestion control mechanisms. Explain any one in detail. (8)

15. (a) (i) Explain the message transfer using Simple Mail Transfer Protocol. (8)  
(ii) Explain the final delivery of email to the end user using POP3. (8)

Or

- (b) Write short notes on  
(i) Web services (8)  
(ii) SNMP. (8)

