Reg. No. AUHIPPO.COM*

Question Paper Code : 40913

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Fourth/Fifth/Sixth/Seventh/Eighth Semester
Computer Science and Engineering
CS6551 – COMPUTER NETWORKS
(Common to : Biomedical Engineering/Electronics and Communication Engineering/
Mechatronics Engineering/Information Technology)
(Regulations 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions

PART – A (10×2=20 Marks)

1. Write down the requirements to build a computer network.
2. List the metrics that influence the performance of computer networks.
3. Define 802.11.
4. What do you mean by switching ?
5. What are the benefits of Open Shortest Path First (OSPF) protocol ?
6. What is multicast routing ?
7. What are the services provided by Transport layer protocol ?
8. Define congestion control.
9. Write the uses of HTTP.
10. What is DNS ?

PART – B (5×13=65 Marks)

11. a) With a neat sketch, explain the function of OSI network architecture. (13)

(OR)

b) Discuss the different ways to address the framing problem. (13)

12. a) i) Show and explain the Ethernet frame format. (7)

ii) Highlight the characteristics of connectionless networks. (6)

(OR)

b) i) Write an algorithm for datagram forwarding in IP. (7)

ii) Show the ARP packet format. (6)

13. a) i) Explain the function of Routing Information Protocol (RIP). (7)

ii) Draw the IPv6 packet header format. (6)

(OR)

b) i) Explain the operation of Protocol-Independent Multicast (PIM). (7)

ii) Outline the need of Distance Vector Multicast Routing Protocol (DVMRP). (6)

14. a) i) Explain how TCP manages a byte stream. (7)

ii) Identify and explain the states involved in TCP. (6)

(OR)

b) i) Explain any one TCP congestion avoidance mechanism. (7)

ii) Brief about the approaches used to provide QoS support. (6)

15. a) Discuss the working of Email in detail. (13)

(OR)

b) i) Tabulate the various HTTP request operations. (7)

ii) Draw the IMAP state transition diagram. (6)

PART – C (1×15=15 Marks)

16. a) Analyse various error detection techniques in transmission of data. (15)

(OR)

b) Elaborate on TCP congestion control mechanisms. Differentiate these mechanisms. (15)