Question Paper Code : 90160

.B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019
Fifth Semester
Computer Science and Engineering
CS8591 – COMPUTER NETWORKS
(Common to Information Technology)
(Regulations 2017)

Time : Three Hours　　　　　　　　　　　　　　　　　Maximum : 100 Marks

Answer ALL questions

PART – A　　　　　　　　　　　　　　　　(10×2=20 Marks)

1. What is transmission media ? Give example.

2. Outline the need for switching.

3. Distinguish between a point-to-point link and a broadcast link.

4. Outline the use of Cyclic Redundancy Check.

5. What is DHCP ?

6. Present an outline of IPv6 addressing.

7. What is piggybacking ?

8. Outline stop-and-wait ARQ mechanism.

9. What is HTTP ?

10. Present an outline of SSH.

PART – B　　　　　　　　　　　　　　　　(5×13=65 Marks)

11. a) Draw the ISO-OSI architecture and outline the functions performed by each layer.

　　　　(OR)

　　b) Describe Circuit-Switching and Packet-Switching with an example.　　　(13)

12. a) Elaborate the working of CSMA and CSMA/CD protocol.

> (OR)

b) Present an outline of HDLC protocol. **(13)**

13. a) Outline Distance Vector Routing with an example and relevant diagrams.

> (OR)

b) Explain the working of Address Resolution Protocol with an example.

14. a) Explain any two TCP congestion control mechanisms with an example.

> (OR)

b) i) Compare the features of TCP and UDP. **(8)**

ii) Explain the TCP header format. **(5)**

15. a) Explain message transfer using Simple Mail Transfer Protocol.

> (OR)

b) i) Explain DNS with an example. **(7)**

ii) Write a short note on FTP. **(6)**

<div align="center">PART – C   (1×15=15 Marks)</div>

16. a) i) Outline IPv4 classful and classless addressing with examples. **(10)**

ii) Assume that you are given a network ID 165.121.0.0. You are responsible for creating subnets on the network and each subnet must provide at least 900 host IDs. What subnet mask meets the requirement for the minimum number of host IDs and provides the greatest number of subnets ? **(5)**

> (OR)

b) Explain Simple Network Management Protocol (SNMP) and its functions.