[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

MAY-24-0468

CS-501 (Computer Networks (CSE, IT))

B.Tech-5th (CBCS)

Time : 3 Hours **Max. Marks : 60**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note: Attempt five questions in all, selecting one question each from Section A, B, C and D. Section E is compulsory.

SECTION-A

1. A) Explain the OSI reference model with neat diagram. (5)

   B) Explain the types of transmission media with the help of example. (5)

2. A) List the difference between circuit switching and Packet switching. (5)

   B) Explain the TCP header and working of the TCP protocol. (5)

SECTION-B

3. A) Explain in brief about different framing methods. (5)

   B) Explain any networking devices in detail. (5)

4. A) Explain in detail about the Point to Point Protocol (PPP) with neat sketch. (5)

   B) Draw the diagram for the formation of Bluetooth piconet. (5)

SECTION-C

5. A) How routers differentiate between the incoming unicast, multicast and broadcast IP packets? (5)

   B) Differentiate between forwarding table and routing table. (5)

6. A) What is Internet multicasting? Explain in detail. (5)

   B) Discuss in detail about the various aspects of IPV6. (5)

SECTION-D

7. A) Differentiate between TCP and UDP. (5)

   B) Explain adaptive flow control and retransmission techniques used in TCP. (5)

8. A) Examine how SMTP transfers message from one host to another with suitable illustration. (5)

   B) Explain in detail about HTTP operation. (5)

SECTION-E (Compulsory)

9. All questions are compulsory. (10×2=20)

   a. Define Computer Network.

   b. What do you mean by Data Communication?

   c. What are the fundamental characteristics for effective data communication?

   d. What are different services provided by data link layer?

   e. Define the following terms - i) Hub ii) Switch

   f. Compare router and bridge.

   g. What is the need for IPV6 Addressing?

   h. List the different phases used in TCP connection.

   i. Mention the different levels in domain name space.

   j. Define: Subnetting and Supernetting.