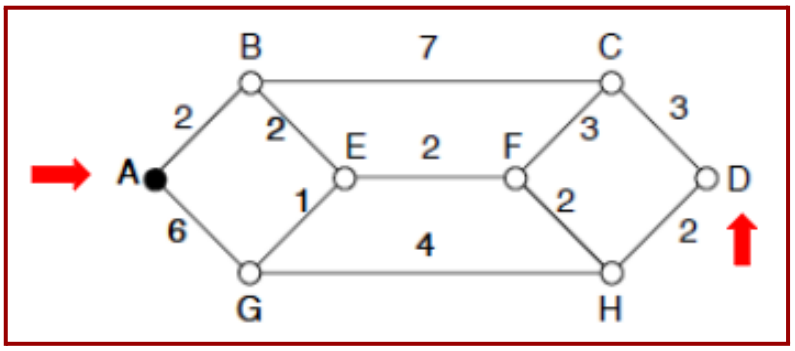
UNIT-1

1	Explain OSI Reference model with diagram?	12M
2	With a neat sketch discuss the functionalities of each layer in TCP/IP protocol suite?	12M
3	Explain types of networks with suitable diagrams.	12M
4	Discuss the different network topologies used in computer networks.	12M
5	Describe the Transmission media. What are the types of Guided Transmission media?	12M
6	Describe the Transmission media. What are the types of Unguided Transmission media?	12M
7	Compare OSI vs TCP/IP reference models	12M
8	Explain the following Network Elements [1] Hub [2] Switch [3] Router [4] Repeater	12M

UNIT-2

1	(a) Explain the working model of CRC . (b) Given 1101011011 data frame & generator polynomial G(x)=x4+x+1 . Derive the transmitted frame	6M 6M
2	Discuss the importance of following Framing Methods [1] Byte Count [2] Character Stuffing [3] Bit Stuffing	12M
3	Explain the following Error Detection Methods with examples [1] Parity [2] Checksum	12M
4	Explain the importance of Hamming Code with example.	12M
5	Why flow control is needed in the Data Link Layer. Explain the following protocols [1] Stop- and- Wait ARQ [2] Go-Back N ARQ	12M
6	Why flow control is needed in the Data Link Layer. Explain the following protocols [1] Stop- and- Wait [2] Selective Repeat ARQ	12M
7	Explain the differences between Pure ALOHA & Slotted ALOHA with Timing Diagrams.	12M
8	Discuss the importance of following protocols [1] CSMA/CD [2] CSMA/CA	12M
10	What are different modes of CSMA with suitable diagrams.	12M

UNIT-3

1	Explain the following Network Layer Design Issues. [1] Store-and-Forward Packet Switching [2] Connection-oriented Service	6M
2	Comparison of Virtual circuits and Datagram subnets.	6M
3	Illustrate Shortest path Routing algorithm for the following network, Consider A as Source and D as Destination. 	6M