

Duration :- 2 1/2 Hours

G41910OCN

[Total Marks: 75]

- N. B.:**
- (1) All questions are compulsory.
 - (2) Make suitable assumptions wherever necessary and state the assumptions made.
 - (3) Answers to the same question must be written together.
 - (4) Numbers to the right indicate marks.
 - (5) Draw neat labelled diagrams wherever necessary.
 - (6) Use of Non-programmable calculators is allowed.

- Q1) Attempt any three of the following:** [15]
- A. State and explain various types of networks. What are the different ways to access the Internet?
 - B. What is the Internet standard? Explain the maturity levels of RFC.
 - C. Write a short note on the OSI model.
 - D. Write a short note on TCP/IP.
 - E. Define Bandwidth, Data Rate, Bound Rate & Signals with diagram.
 - F. Explain the mode of data transmission.

- Q2) Attempt any three of the following:** [15]
- A. What are the functions of the data link layer? What is the relationship between packets and frames? Explain the different methods of framing.
 - B. What are the different types of transmission media? Explain each type.
 - C. What is a virtual circuit network? What are its characteristics?
 - D. Explain the three phases of communication in a circuit switched network.
 - E. Write a short note on multiplexing.
 - F. Write a short note on CRC.

- Q3) Attempt any three of the following:** [15]
- A. Explain in brief Flow Control.
 - B. Explain G—Back n ARQ.
 - C. Write a short note on ALOHA.
 - D. Write a short note on FDMA.
 - E. Explain the applications of Wireless LAN.
 - F. Write a short note on Bluetooth.

- Q4) Attempt any three of the following:** [15]
- A. What are the duties of a Network Layer?
 - B. Write a short note on Unicast Routing.
 - C. Explain Why IP Address?
 - D. Write a short note on IPv6.
 - E. Write a short note on Mobile IP.
 - F. Explain OSPF in detail.

- Q5) Attempt any three of the following:** [15]
- A. What are the duties of a Transport Layer?
 - B. Explain addressing in Transport Layer.
 - C. Write a short note on DNS.
 - D. Write a short note on Telnet.
 - E. Write a short note on FTP.
 - F. Write a short note on WWW.