

Q. P. Code: 18244

(3 Hours)

[Total marks : 80]

- N.B.: (1) Question **No:1** is **compulsory**
 (2) Attempt any **three** questions out of the remaining **five** questions
 (3) Assume **suitable** data, wherever **necessary**

- 1 Answer any four: (20)
 a) Explain the various types of bridges used in networks
 b) Which are the various types of addresses used in OSI model? Explain each in brief.
 c) In network paradigm, what is TTL? Where and why is it used?
 d) Compare TCP and UDP
 e) Distinguish between space division switch and time division switch
- 2 a) What are the various functions of Physical, Network and Presentation layers in ISO-OSI model. What is meant by encapsulation and decapsulation? (10)
 b) Explain Stop and Wait ARQ protocol for error control (10)
- 3 a) Classify the various congestion control strategies and explain any two closed loop congestion control methods in detail (10)
 b) Draw the header format of IP datagram and explain each field in detail (10)
- 4 a) Explain the operation of Routing Information Protocol. List the limitations of RIP and their corresponding fixes. (10)
 b) Explain how routers use link state routing algorithm to create the routing table (10)
- 5 a) Explain the various station types, configurations, response modes and frame formats in HDLC (10)
 b) Classify the various multiple access methods and explain CSMA-CA and Token ring in detail (10)
- 6 Write short notes on any four: (20)
 a) Berkley API
 b) 802.3 MAC frame format
 c) IP fragmentation
 d) Domain Name Server
 e) ADSL