

Total No. of Questions : 8]

SEAT No. :

PA-1490

[Total No. of Pages : 2

**[5926]-110**  
**T.E. (E & TC)**  
**COMPUTER NETWORKS**  
**(2019 Pattern) (Semester-I) (304185D) (Elective - I)**

**Time : 2½ Hours]**

**[Max. Marks : 70**

**Instructions to the candidates:**

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if required.

- Q1)** a) Discuss the packet switching technique. [6]  
b) Discuss the network layer services. [4]  
b) Explain the classful addressing in IPV4 protocol. [6]

OR

- Q2)** a) Discuss IPV6 protocol. [6]  
b) Compare circuit switching Vs packet switching. [4]  
c) Explain ICMPV6 protocol (ICMPv6). [6]

- Q3)** a) Explain unicast and multicast routing. [6]  
b) Explain Dijkstra's algorithm for shortest path routing. [6]  
c) Explain IGMP protocol (IGMP protocol) [6]

OR

- Q4)** a) Explain routing information protocol. [6]  
b) Explain path vector routing. [6]  
c) Discuss border gateway protocol. [6]

- Q5)** a) Explain TCP services and its features. [6]  
b) Explain stream control transmission protocol. [6]  
c) Explain transport layer quality of services parameters. [6]

OR

**P.T.O.**

- Q6)** a) Explain TCP connection establishment using three way handshaking. [6]  
b) Explain UDP protocol and its features. [6]  
c) Explain congesting control in TCP. [6]

- Q7)** a) Explain telnet protocol. [6]  
b) Explain FTP protocol. [6]  
c) Explain simple mail transfer protocol. [6]

OR

- Q8)** a) Explain internet message access protocol. [6]  
b) Explain how DNS server work. [6]  
c) Explain Dynamic host configuration protocol. [6]

