

Con. 3471-10.

(REVISED COURSE)

AN-4225

(3 Hours)

[Total Marks : 100]

N.B. : (1) Question No. 1 is **compulsory**.(2) Attempt any **four** out of remaining **six** questions.(3) **Figures** to the **right** indicate marks.

1. (a) What is the difference between protocol and service interface ? Explain your answer in terms of the OSI 7 layer model. 10
- (b) Describe any five functions of data link layer with suitable examples. 10
2. (a) Explain one-bit sliding window protocol in detail. 10
- (b) Explain ALOHA and Slotted ALOHA in detail. 10
3. (a) Explain Dijkstra's Algorithm as shortest path routing with example. 10
- (b) Explain the working of Leaky Bucket Algorithm. Why Leaky Bucket Algorithm is used in Computer Network. 10
4. (a) Draw and explain the structure of IP Frame Header. 10
- (b) Explain classful Addressing in IP v4. 10
5. (a) What is count to infinity problem in distance vector routing ? 10
- (b) Explain Three way Handshake Technique in TCP. 10
6. (a) Explain working of following Network components and state in which layer they work. Repeaters, Hubs, Bridges, Routers, Switches, Gateways. 10
- (b) Differentiate between virtual circuit and datagram subnets. 10
7. Write short notes on (any **four**) :- 20
 - (a) AdHoc Networking
 - (b) Comparison of 802.3 and 802.11
 - (c) SONET
 - (d) Differentiate Data Link Layer and Transport Layer
 - (e) Quality of Service (QOS) of Internetworking.