

Con. 2976-08.

(REVISED COURSE)

CO-4225

(3 Hours)

[Total Marks : 100

- N.B. : (1) Question No. 1 is compulsory.
 (2) Attempt any four questions out of remaining six questions.

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| 1. | (a) | Compare OSI model and TCP/IP model. | 5 |
| | (b) | Explain HDLC data link control. | 5 |
| | (c) | What is the difference between Network layer delivery and transport layer delivery. | 5 |
| | (d) | Explain packet switching in brief. | 5 |
| 2. | (a) | Explain performance issues in ARQ. | 10 |
| | (b) | Draw the layered OSI Network architecture. Explain the functions of each layer and show the path of actual and virtual communication between the layers. | 10 |
| 3. | (a) | Explain the SONET multiplexing and SONET frame structure. | 10 |
| | (b) | What is the mechanism of sliding window flow control ? | 10 |
| 4. | (a) | Differentiate UDP and TCP. | 10 |
| | (b) | Show that the maximum through put of pure ALOHA is $1/2e$. | 10 |
| 5. | (a) | Explain the various transmission media in detail. | 10 |
| | (b) | Explain the spanning tree algorithm with reference to frame forwarding, address learning and loop resolution. | 10 |
| 6. | (a) | Explain Dijkstra's shortest path algorithm using graph. | 10 |
| | (b) | With the help of block diagram explain ATM protocol architecture. | 10 |
| 7. | Write short notes on :- | | |
| | (a) | IPv4 and IPv6 | 5 |
| | (b) | Hubs, Bridges and Switches | 5 |
| | (c) | FDDI | 5 |
| | (d) | ATM traffic management. | 5 |