

Jan-2009 B.sc.(IT) Sem-III

Dec. PR 196

# Computer Networks

ZN-1255

Con. 242-08.

(3 Hours)

[ Total Marks : 100

- N.B. :** (1) Question No. 1 is **compulsory**.  
(2) Attempt any **four** from the remaining question.  
(3) **Each** question carries **equal** marks.

1. (a) What is the architecture of OSI reference model ? Explain the layers clearly. 10  
(b) What is the difference between dual cable and single cable ? 10
2. Write short notes on : 20  
(i) Fiber optic cable  
(ii) Twisted pair cable.
3. (a) What is piggybacking and pipelining technique ? Explain briefly. 10  
(b) Write short notes on : 10  
(i) Repeater  
(ii) Bridge  
(iii) Gateways  
(iv) Protocol converters.
4. (a) What is topology ? List down all types of topology. Explain any two topologies with its advantages and disadvantages. 10  
(b) What is the difference between stop and wait flow control and sliding window flow control ? 10
5. (a) Explain TCP/IP reference model. 10  
(b) What are the three phases of an X.25 connection ? 10
6. (a) Write short notes on : 10  
(i) layer and protocol  
(ii) 802.3 Bridges.  
(b) What is IP ? Explain IP datagram in detail. 10