Time: 3 hours **Max. Marks: 80**

N.B. (1) Question one is Compulsory.
(2) Attempt any 3 questions out of the remaining.
(3) Assume suitable data if required.

Q. 1	a)	Explain why there is need for layered designing for networking and communication.	**05**
	b)	Explain the functionality of Sliding window protocol	**05**
	c)	Explain the different classes of IPV4 addressing technique	**05**
	d)	Write Short note on Parity check	**05**
Q 2	a)	Compare between layers of OSI model and TCP/IP model with a neat diagram	**10**
	b)	What are the different DLL design issues? Describe them in brief.	**10**
Q 3	a)	What is Channel allocation problem? Explain CSMA/CD protocol. A network with CSMA/CD has 100 Mbps bandwidth and 25.60 micro second maximum propagation delay. What is the minimum frame size?	**10**
	b)	Explain Cisco Service Oriented Network Architecture in detail	**10**
Q 4	a)	What is ALOHA? Explain Pure ALOHA and Slotted ALOHA in detail	**10**
	b)	Differentiate between Routed and Routing protocols and also depict the classification of routing algorithms.	**10**
Q 5	a)	What is SDN? Explain SDN Building Blocks with different Open flow messages.	**10**
	b)	Elaborate TCP flow control mechanism with example	**10**
Q 6		Write a short note on	
	a)	TCP Timers	**05**
	b)	DNS	**05**
	c)	Static routing and Dynamic routing	**05**
	d)	Packet Switched vs Circuit Switched Network	**05**
