S.E. (IT) (Sem - IV) (CBS GS)

Duration: 3 Hours   **Total Marks: 80**

Note:
(1) Questions No. 1 is compulsory.
(2) Solve any three questions from remaining questions.
(3) Draw suitable diagram whenever necessary.
(4) Assume suitable data if necessary.

Q1	**Answer Any four**		**(20)**
	(a)	Explain PSTN.	
	(b)	Explain selective repeat protocol.	
	(c)	Explain CRC with example.	
	(d)	Compare Circuit switched and packet switched network.	
	(e)	What is IP address, MAC Address and port address.	
Q2.	(a)	Explain the Taxonomy of multiple access protocols.	**(10)**
	(b)	What is Slotted ALOHA and Pure ALOHA? What is the efficiency? Justify your answer.	**(10)**
Q3.	(a)	Explain TCP Congestion Control.	**(10)**
	(b)	Explain IEEE 802.3, 802.4 and 802.5 standard.	**(10)**
Q4.	(a)	Explain TCP sliding window protocol with neat diagram.	**(10)**
	(b)	What is subnet mask? Explain subnetting and supernetting with example.	**(10)**
Q5.	(a)	Compare OSI and TCP network models.	**(10)**
	(b)	Explain HDLC protocol with suitable diagram.	**(10)**

Q6.   Write short note on **(Any Four)**   **(20)**
(a)   Satellite Communication
(b)   Examine the advantages of LAN, MAN and WAN.
(c)   Differentiate between connectionless and connection oriented services.
(d)   Mobile Telephone System.
(e)   Link State Routing.

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