		SAGAR INSTITUTE OF SCIENCE & TECHNOLOGY **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**	**FORM NO**	**SISTEC/A/08**
BRANCH	**CS**		**REV. NO**	**00**
SEMESTER	**VI- 1**	**ASSIGNMENT-3**	**REV. DT**	
NAME OF THE FACULTY: DR. P. S. CHAUHAN **SUBJECT/CODE: COMPUTER NETWORKS/ CS602**				

Set-1	
1	Explain CSMA protocol with collision detection and avoidance.
2	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
3	What do you mean by Medium Access Control sub layer? Why do we need it? Explain MAC addressing.

Set-2	
1	Make a comparison between pure ALOHA, Slotted ALOHA and CSMA/CD.
2	A 2km long broadcast LAN has 10^7 b/s BW & use CSMA/CD. The signal travel along the wire at $2*10^8$m/s. What's the min packet size that can be used on this network?
3	What do you mean by Medium Access Control sub layer? Why do we need it? Explain MAC addressing.

Set-3	
1	How does adaptive tree walk protocol works?
2	Explain the Frame format of IEEE 802.4 (token bus) protocol**.**
3	Write short note on following: (a) Basic Bit Map (b) Binary Count Down

Set-4	
1	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
2	Consider a slotted ALOHA having five stations. If the offered load $G_1 = 0.1$, $G_2 = 0.15$, $G_3 = 0.2$, $G_4 = 0.25$, and $G_5 = 0.3$ packets, find the individual throughput of each station and channel throughput.
3	What do you mean by Medium Access Control sub layer? Why do we need it? Explain MAC addressing.

Set-5	
1	Make a comparison between pure ALOHA, Slotted ALOHA and CSMA/CD
2	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
3	Derive an expression to prove that throughput of “slotted ALOHA” is approximately twice than throughput of “PURE ALOHA”.

Set-6	
1	Make a comparison between pure ALOHA, Slotted ALOHA and CSMA/CD.
2	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
3	Consider a slotted ALOHA having five stations. If the offered load $G_1 = 0.1$, $G_2 = 0.15$, $G_3 = 0.2$, $G_4 = 0.25$, and $G_5 = 0.3$ packets, find the individual throughput of each station and channel throughput

Set-7	
1	Explain CSMA protocol with collision detection and avoidance.
2	Consider a slotted ALOHA having five stations. If the offered load $G_1 = 0.1$, $G_2 = 0.15$, $G_3 = 0.2$, $G_4 = 0.25$, and $G_5 = 0.3$ packets, find the individual throughput of each station and channel throughput.
3	What do you mean by Medium Access Control sub layer? Why do we need it? Explain MAC addressing.

Set-8	
1	A 2km long broadcast LAN has 10^7 b/s BW & use CSMA/CD. The signal travel along the wire at $2*10^8$m/s. What's the min packet size that can be used on this network?
2	How does adaptive tree walk protocol works?
3	Write short note on following: (a) Basic Bit Map Binary Count Down

Set-9	
1	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
2	Explain the Frame format of IEEE 802.4 (token bus) protocol**.**
3	Derive an expression to prove that throughput of "slotted ALOHA" is approximately twice than throughput of "PURE ALOHA".

Set-10	
1	Make a comparison between pure ALOHA, Slotted ALOHA and CSMA/CD.
2	Differentiate between 802.3, 802.4 and 802.5 IEEE standard.
3	What do you mean by Medium Access Control sub layer? Why do we need it? Explain MAC addressing.