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Internal Assessment Test 1 – September 2019										
Sub:	COMPUTER NETWORKS				Sub Code:	17CS52	Branch:	CSE		
Date:	06/06/2019	Duration:	90 min's	Max Marks:	50	Sem / Sec:	A,B,C		OBE	
Answer any FIVE FULL Questions								MARKS	CO	RBT
1 a.	Explain how Selective- Repeat (SR) protocol overcomes the drawbacks of Go-Back-n protocol. Why the maximum window size is restricted to 2^{k-1} , when 'k' specifies the maximum bits in the sequence number field? How it applies flow control?						[10]	CO1	L2	
2 a.	Suppose that the five measured SampleRTT values (see Section 3.5.3) are 106 ms, 120 ms, 140 ms, 90 ms, and 115 ms. Compute the EstimatedRTT after each of these SampleRTT values is obtained, using a value of $\alpha = 0.125$ and assuming that the value of EstimatedRTT was 100 ms just before the first of these five samples were obtained. Compute also the DevRTT after each sample is obtained, assuming a value of $\beta = 0.25$ and assuming the value of DevRTT was 5 ms just before the first of these five samples was obtained. Last, compute the TCP timeoutInterval after each of these samples is obtained.						[04]	CO1	L1	
b.							[10]	CO1	L2	
3a.							[06]	CO1	L2	
b.	Suppose a router receives an IP packet containing 600 data bytes and has to forward the packet to the network with maximum transmission unit of 200 bytes. Assume that the IP header is 20 bytes long. Show the fragments that the router creates and specify the relevant values in each fragment header. Or If a packet having 5000 data bytes arrive at a router, which needs to be forwarded over a network having MTU 1520 bytes, apply fragmentation and update the details in the fragmentation header.						[06]	CO1	L1	
4.	With a neat Diagram, explain the router architecture						[10]	CO2	L2	
5.	With related case studies, explain the causes and costs of congestion in network.						[10]	CO2	L2	
6 a	How End-to End congestion control has been applied in Congestion management at transport layer?						[6]	CO2	L1	
b	What are the different approaches for transition from IPv4 to IPv6?						4	CO2	L1	
7 a	Explain different address classes defined in IPV4?						8	CO2	L2	
b	Identify following IP address classes i). 100.10.5.15 ii) 172.100.50.10 iii)240.60.10.5 iv) 250.20.5.0						2	CO1	L2	