Maximum Marks: 30	Semester: January 2022 – May 2022 Examination: In-Semester Examination		Duration :1 Hr. 15 min
Programme code: 01 Programme: UG	Class: FY/SY/TY/LY/MTECH		Semester: I/II/III/IV/V/VI/VII/VIII (SVU 2020)
Name of the Constituent College: K. J. Somaiya College of Engineering		Name of the department: COMP/ETRX/EXTC/IT/MECH	
Course Code: 116U01C502	Name of the Course: Computer Networks		

Question No.		Max. Marks	CO Mapped	BT Level
Q1	A. Draw layered architecture of the OSI reference model and write two services provided by each layer of model. B. Give 3 differences between Connection-oriented and Connectionless services.	10 M	CO1	RE
Q2	Draw the following scenarios for GO Back N ARQ with window size 4. I. Frame 0 is sent, and ACK received. II. Frame 1,2 sent. III. Frame 1 is lost and Timer times out. IV. Frames 1 and 2 resent and for both ACK received V. Frame 3 is sent but ACK lost. VI. Frame 3 is resent, and ACK received. What is the window size in the given scenario? What will happen if frame 0, 1 and 2 is sent but frame 1 is lost. **OR** Given the Dataword 1010011010 and the divisor $x^4 + x^2 + x + 1$. I. Show the generation of the code word at the sender site. II. Show checking of codeword at the receiver site. List down the characteristics of a good polynomial generator.	10 M 10M	CO2	UN, AP
Q3	A. An organization is granted the block 211.17.180.0/24. The administrator wants to create 32 subnets. I. Find the subnet mask. II. Find the number of addresses in each subnet. III. Find the first and last address of subnet 1. IV. Find first and last addresses in subnet 32. B. Explain in brief various Addresses associated with different layers of OSI model.	10M	CO1, CO3	RE, AP