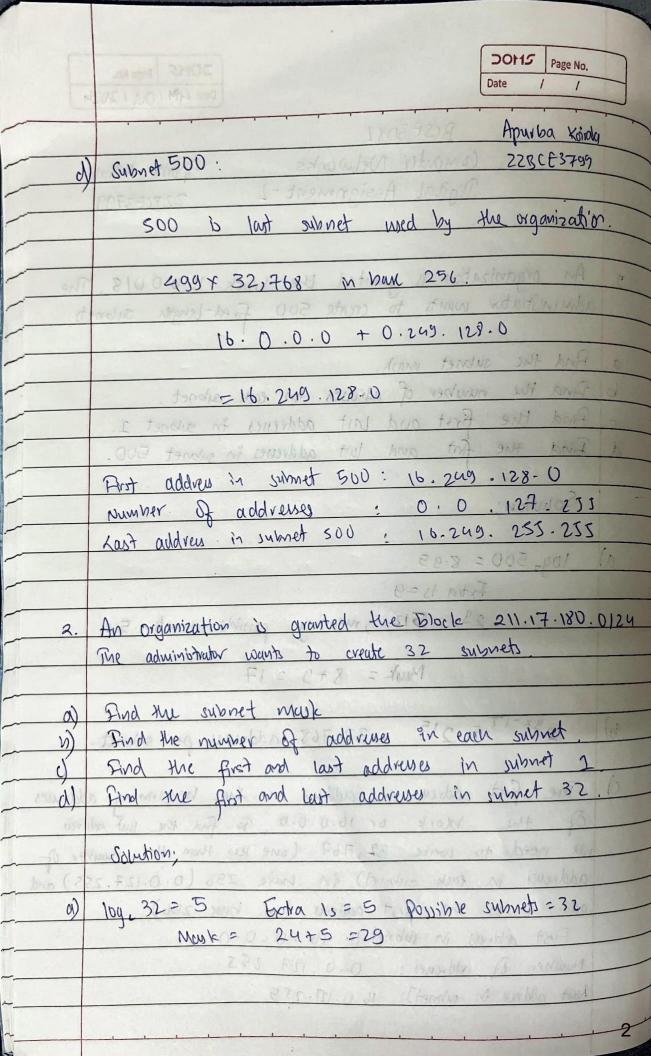
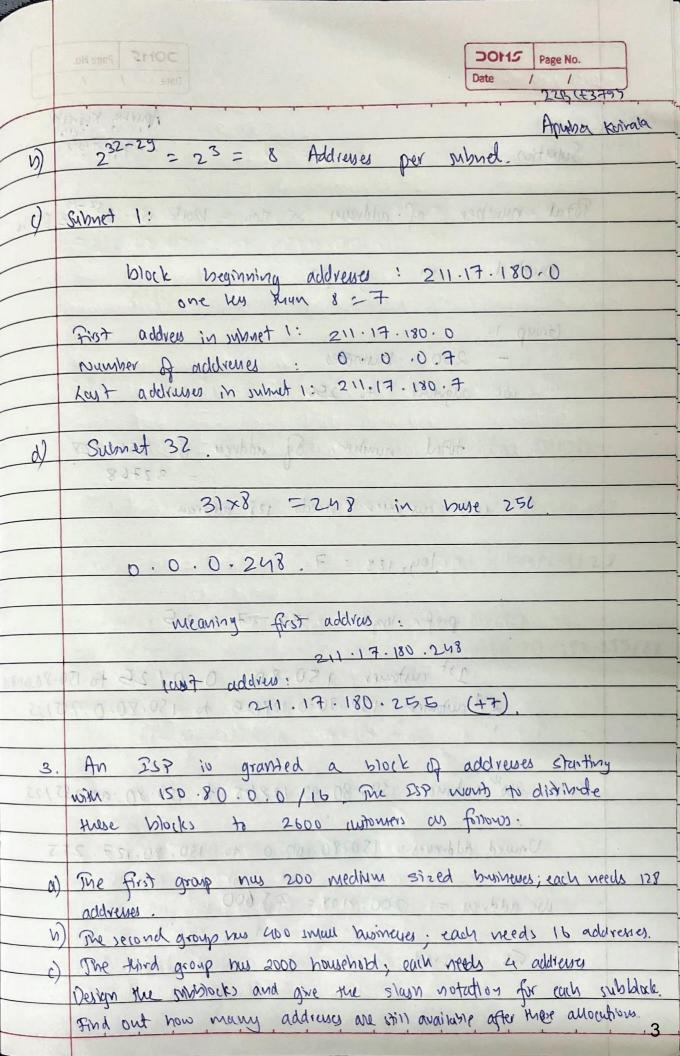
BUSE 308L Computer Networks Apurba Korrala Digital Assignment - 2 223CF3799 2. An organization & granted the block 16.0.0.018. The administrator wants to create 500 fixed-length subnet And the subnet mask. And the number of adverses in each subnet. Find the first and last addresses in subnet 1. Find the first and lust addresses in subnet 500. Solution: 0.0 . REAL TOOR TOWNER OF SELECTION STANDS a) 1092500 = 8.95 Extra 15=9 29 = 512, meaning possible subnet : 512 Musk = 8+9 = 17 b) 232-17 = 215 = 32,768 addresses per subnet. due of working feat loss for any love c) The first address in address in the beginning addresses Of the block or 16.0.0.0. To find the just addrew, we need to write 32, 767 (one less than the number of addresses in each submet) in base 256 (0.0.127.255) and add it to the first address (in buse 256)

Mymber of addresses: 0.0.127.255

Last address in subnet ?: 16.0.127.255

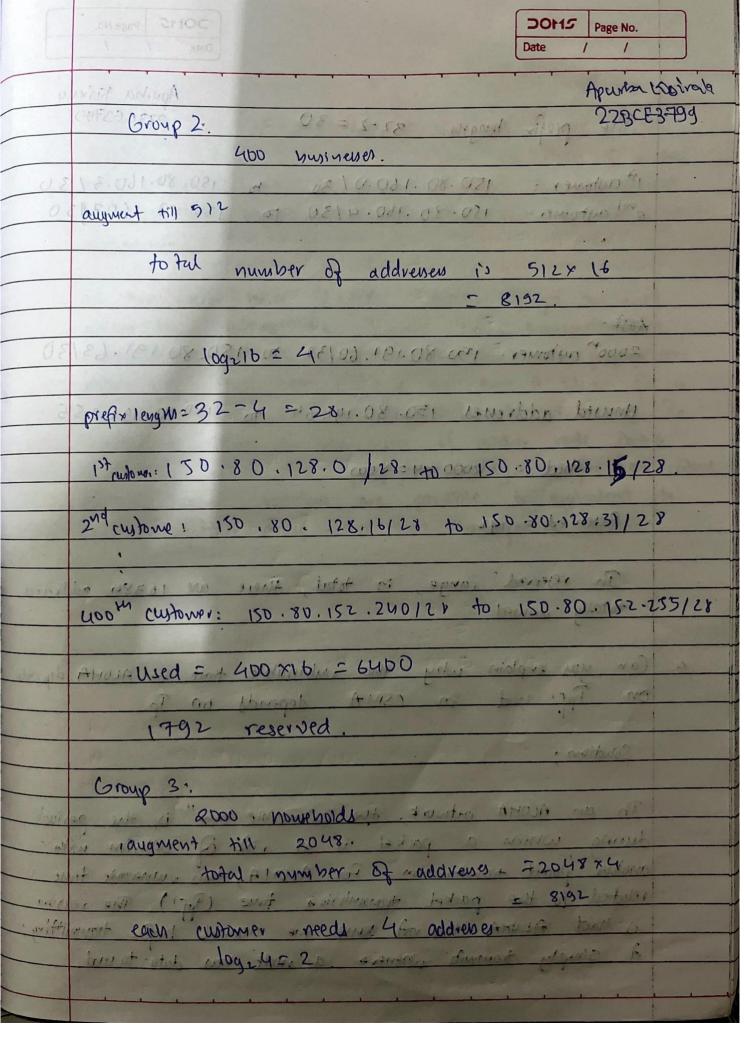
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DOMS Page No. Apulla Kcirala 22BCE3+99 Solution; body on the same A Total number of addresses in this block is 232-16 = 65534 Dirded = in group) mineral dold Group 1. 10 Oct FI TIS I'V FORMER AT MOVED FOR - 200 buineues . La Northban Co Molavier we alignent to 256 the man whenter that total number of addrew of 250x 128 = 32768 1 ach customer needs 128 addrews. loy2128 = 7. 8NS 0.0.0 prefin length = 32-7=25 1st customer: 150.80.0,0125 to 150.80,017/25 2nd automer: 150.80.0.128/25 to 150.80.0.255/25 trata recention a store a store in addresses when e 200th customer: 150.80.99.128/25 to 150.80.99.255/25 these blocks to some materials and Unused addreves: 150.80.100.0 to 150.80.127.255 a) The first enough to the british of the same and the same in we addrew = 200 x128 = 25600 1) The second decays has been and transmin reads aceds the art runes more the 36 year vedo. Market and and and both and who will rethestory cross sex our two estudios self miles

shind out now evanue address are this entitles offer her allered



DOM15 Page No. Apurba Kurala 22BCE3799 The prefix length 32-2=30 400 DUDINGUEL 1st customer: 150.80.160.0/30 to 150.80.160.3/30 and customer, 150.80.160.4/30 to 150.80.1607/30 to test mumber of addresses is sizz li 每. 2000 momer: 150.80.191.60/30 to 150.80.191.63/30 Unused addresses 150.80.191.64 to 150.70.191.255 51 11 Wed 8: 022000 xy = 8000 0.851.08.071 5 | Reserved = 992 of 85 121.851 . 08, 081 and works In reserved range, in total, there are 16384 addresses totally unused to 1810 US 521. UR OZI MARCHEN CONSTRUCTIONS Can you explain why the vulnerable time in ALOHA depends on Tpf' but in CSMA depends on Tp. Solution: In an ALOHA network, the "winevable time" is the period during which a packed is at risk of collision with another parket transmission. For ALOHA, this rulnerance time D related to the packet transmission time (Pof1). The reason à that ALOMA does not sense the channel before transmitting; it simply transmits whenever a node now date to send.

Consequently, the vulnerable time becomes twice the packet duration (2 × Tpf), since a collision can occur if another node starts transmitting within a period of one pucket transmission time before or after the start of the current transmission

DOMS PARENO.

on the other hard, CSMA notworks attempt to arrival collisions by sensing the channel before transmitting. The value vable time in CSMA depends on the propagation delay (Tp). This delay (Tp) is the time it takes for a signal to travel value on the nodes in the network. In CSMA, a collision can only occur if another node starts transmitting within the propagation delay. Therefore the control window where collisions are possible is equivalent to the propagation delay.