

AACS2034 Fundamentals of Computer Networks

VLISM DRY TEST (PART B-VLSM)

Q1. The network of Unico College is subnetted based on IPv4 address of 195.0.0.0/8. The college needs 3 Local Area Networks (LANs): **Sport Centre** 2,097,149 hosts, **Academic Office** 255,140 hosts, **Administration Office** 131,069 hosts as well as 2 Wide Area Networks (WANs): **Link #1** and **Link #2** to support their operations.

Using a Variable Length Subnet Mask (VLSM), compute and list all the possible subnet information in the table below. Write your answer in dotted decimal format. (202009 TAR UC, resit)

Subnet name	Number of hosts needed	Subnet address	Prefix length /?	First usable host address	Last usable host address	Broadcast address
Sport Centre	2,097,149	195.0.0.0 /	/11 /	195.0.0.1 /	195.31.255.254 /	195.31.255.255 /
Academic Office	255,140	195.32.0.0 /	/14 /	195.32.0.1 /	195.35.255.254 /	195.35.255.255 /
Administration Office	131,069	195.36.0.0 /	/15 /	195.36.0.1 /	195.37.255.254 /	195.37.255.255 /
Link #1	2	195.38.0.0 /	/30 /	195.38.0.1 /	195.38.0.2 /	195.38.0.3 /
Link #2	2	195.38.0.4 /	/30 /	195.38.0.5 /	195.38.0.6 /	195.38.0.7 /
		195.38.0.8				

11111111 11100000 00000000 00000000
 11111111 11111100 00000000 00000000
 11111111 11111110 00000000 00000000

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