### IPv4 Assignment 12

Based on the information in the graphic shown, design a network addressing scheme that will

supply the minimum number of hosts per subnet, and allow enough extra subnets and

hosts for 20% growth in all areas.

Class B IP address: 163.12.0.0



Questions:

1. Address Class (1 Marks):

B /19

1. Custom Subnet Mask (2 Marks):

255.255.224.0

1. Total no of subnets needed (include the growth) (2 Marks):

7

1. Number of host addresses in the largest subnet group (include the growth) (2 Marks):

8192

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 7

1. IP address range for Vancouver (include subnet and broadcast address) (2 Marks):

163.12.0.0-163.12.31.255 255.255.224.0

1. IP address range for Toronto (include subnet and broadcast address) (2 Marks):

163.12.64.0-163.12.79.255 255.255.240.0

1. IP address range for Quebec (include subnet and broadcast address) (2 Marks):

163.12.32.0-163.12.63.255 255.255.224.0

1. IP address range for Router A-B connection (include subnet and broadcast address) (2 Marks):

163.12.80.0-163.12.80.3  255.255.255.252

1. IP address range for Router B-C connection (include subnet and broadcast address) (2 Marks):

163.12.80.4-163.12.80.7 255.255.255.252

1. IP address range for Router C-D connection (include subnet and broadcast address) (2 Marks):

163.12.80.8-163.12.80.11 255.255.255.252

1. IP address range for Router D-E connection (include subnet and broadcast address) (2 Marks):

163.12.80.12-163.12.80.15 255.255.255.252

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 14

Total Marks: \_\_\_\_\_\_\_\_  
 21