



EAST WEST UNIVERSITY

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Signature of the Invigilator with Date:

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Course Code: CSE405

Course Title: Computer Network

Section: 01

Course Instructor: Dr. Anisur Rahman

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Marks Obtained

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Total	

Signature of the Course Instructor

Answering to the question no-01

Given,

57.156.223.185

which the IP of class A

Here, 7 bits are taken to create
subnets

Network IP: 57.0.0.0

57	<u>subnet</u>			
Network	00000000	00000000	00000000	00000000

Subnet mask 11111111	11111111	0	00000000	00000000
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6th subnet	00001101	1	11111111	11111111 (Broadcast IP)
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9th subnet	00010010	0	00000000	00000001 (1st host)
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9th subnet	00010011	1	11111111	11111110 (Last host)
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a) Subnet Mask (CIDR notation): 255.254.0.0/15

b) Broadcast address of 6th subnet : 57.13.255.255

c) 1st host of 9th subnet : 57.18.0.1

Last host of 9th n : 57.19.255.254

Answering to the question no → 02

Given,

159.240.232.73 / 26 class B IP

Network IP: 159.240.0.0

As Network part consume 16 bits,

So, $26 - 16 = 10$ bits are using for subnetting

a) Number of possible subnets = $2^{10} - 2$
 $= 1022$

	subnet	
159 240	00000000	00000000
Network		
1st subnet	00000000	01 000000
Last subnet	11111111	10 000000
7th subnet	00000001	11 111110 (Last host)

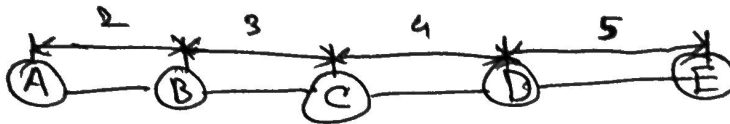
b)

1st subnet	IP : 159.240.0.64
Last subnet	IP : 159.240.255.128

c) Last host IP of 7th subnet : 159.240.1.254

Answering to the question no → 3

Given,



initial

2 (3+2=5) (5+4=9) (9+5=14)

2

3+5
= 8

5

9

14

8

8+3
= 11

9

14

3+11
= 14

11

14+11
= 15

14

14

3+14
= 17

15

5+15
= 20

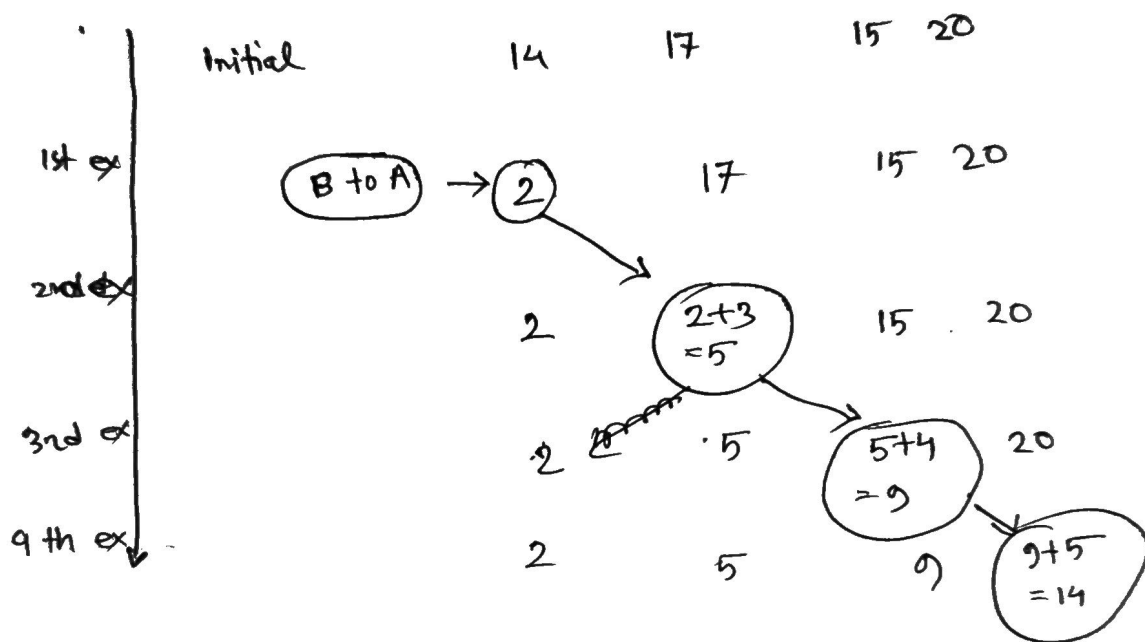
A UP
↓
down
↓
1st ex

2nd ex

3rd ex

4th ex

A gone up



Answering to the question no → 04

Here,

we want go from J to M
 source J and destination M
 neighbours A, I, H, K and N

From Table we can write

JA : 12 msec

JI : 14 msec

$$JH: 6 \text{ ms}$$

$$JK: 18 \text{ ms}$$

$$JN: 16 \text{ ms}$$

So, we possible route to destination

$$JM: JA + AM = 12 + 14 = 26 \text{ ms}$$

$$JM: JI + IM = 14 + 6 = 20 \text{ ms}$$

$$JM: JH + HM = 6 + 21 = 27 \text{ ms}$$

$$JM: JK + KM = 18 + 6 = 24 \text{ ms}$$

$$JM: JN + NM = 16 + 12 = 28 \text{ ms}$$

here, we will follow the minimum distance

from J to M.

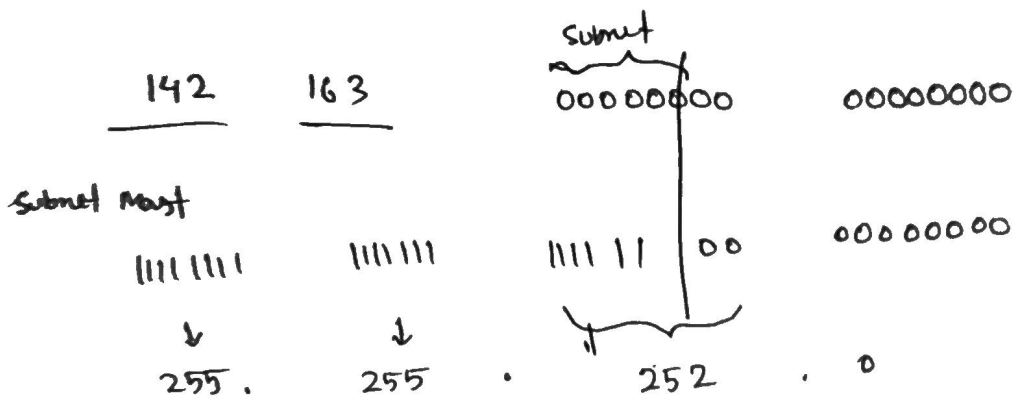
so, J will follow $J \rightarrow I$ then $I \rightarrow M$
path to reach M

Answering to the question no → 05

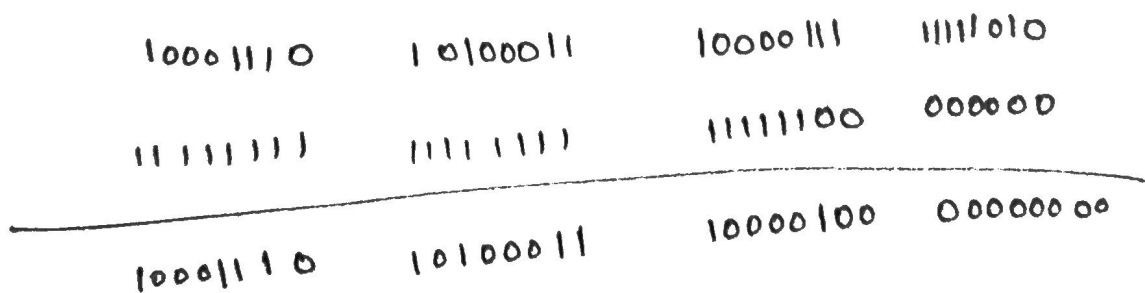
Given ,

main Router's Network IP : 142.163.178.254/22

∴ Network IP : 142.163.0.0



Given host IP 142.163.135.25



∴ Subnet IP of given host : 142.163.132.0

No of possible subnet in network : $2^6 - 2 = 64 - 2 = 62$

No of host in subnet : $2^{10} - 2 = 1024 - 2 = 1022$