

Internet Technology H.W #2

Partners for Projects as well.

Name 1: Raunak Rishan

Name 2: Shubham Mittal.

1. Since, size of data field = $700 - 20$
 $= 680$.

$$\Rightarrow \text{Number of fragments generated} = \left\lceil \frac{1400 - 20}{680} \right\rceil$$
$$= 4.$$

\Rightarrow 4 fragments are generated.

Value of different IP datagram fields:

Identification No = 422

Size of fragments $\Rightarrow f_1 = 700$ bytes.

$f_2 = 700$ bytes

$f_3 = 700$ bytes

$f_4 = 360$ bytes.

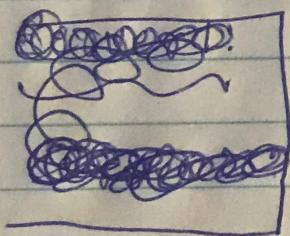
Offsets of fragments $\Rightarrow 0, 85, 170, 255$.
In order.

frag fragment flag [In Order].

$$\begin{aligned}f_{11} &= 1 \\f_{12} &= 1 \\f_{13} &= 1 \\f_{14} &= 0\end{aligned}$$

~~Aus.~~

2. (a) Network addresses that ~~are~~ are:



- Subnet 1 $\rightarrow 223.1.17.0/26$
Subnet 2 $\rightarrow 223.1.17.128/25$
Subnet 3 $\rightarrow 223.1.17.192/28$

~~Aus.~~

(b) Prefix for the four equal size subnet:

128.119.40.64/28

128.119.40.80/28

128.119.40.96/28

128.119.40.112/28

~~Aus.~~

Exp. No.	Experiment/Subject	
Name	Lab Partner	Date
		Locker/ Desk No.
		Course & Section No.

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iii) consider A transmitting to B.
Hidden terminals:

When A is transmitting to B, C can't receive A, since D is outside the A's transmission range. But B & C fall within the transmitter range. A. Thus D is hidden to A (exposed terminals).

When A is transmitting to B, C could transmit to D. Actually C to D transmission may not interfere in transmission from A & B. But C senses the medium & found busy. Thus C, with unnecessary. Therefore C is exposed to B.

∴ C & B fall within the transmission radius of A hence they are exposed while D is hidden from A.

ii) Hidden terminals: When B is transmitting to A, D can't receive B, since D is outside the B's transmission range. Thus D is hidden from B.

Exposed terminals: → While B is transmitting to A, there are no exposed terminals only A & C fall within the transmission radius, but when B transmitting no exposed hence D is exposed.

Signature	Date	Witness/TA	Date
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(iv) Hidden terminals : when A is transmitting to C, D can't receive A's since D is outside the A's transmission range. Thus D is hidden terminal to A.

Exposed terminal - A is transmitting, hence none of the B & C can transmit, hence exposed.

(v) Hidden terminal : when D is transmitting to B, A can't receive D, since A is outside D's range. Thus A is hidden terminal to D.

Exposed terminal : When D is not in the transmission range of B hence exposed.

Signature	Date	Witness/TA	Date
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4) Note \times table

		cost \rightarrow	(Before)	$c(x,y) = 4$
		\rightarrow	$c(y,z) = 7$	$c(z,x) = 2$
from	x	x	y	z
		0	4	2
	y	∞	∞	∞
	z	∞	∞	∞

cost \rightarrow

		x	y	z	(After)
		\rightarrow	\rightarrow	\rightarrow	
	x	0	4	2	
from	y	4	0	7	
	z	2	7	0	

Note \times table

		cost \rightarrow	Before
		\rightarrow	
	x	y	z
	∞	∞	∞
from cost	y	4	0
	z	∞	∞

cost \rightarrow

		x	y	z	(After)
		\rightarrow	\rightarrow	\rightarrow	
	x	0	4	2	
from	y	4	0	7	
	z	2	7	0	

Signature

Date

Witness/TA

Date

Exp. No.	Experiment/Subject	Date
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Node 2 table

B gone

Cost to

x y z

x ∞ ∞ ∞ from y ∞ ∞ ∞

z 2 7 0

Cost to

After.

x y z

x 0 4 2

y 4 0 7

z 2 7 0.

Signature

Date

Witness/TA

Date

THE HAYDEN-McNEIL STUDENT LAB NOTEBOOK

Note: Insert Divider Under Copy Sheet Before