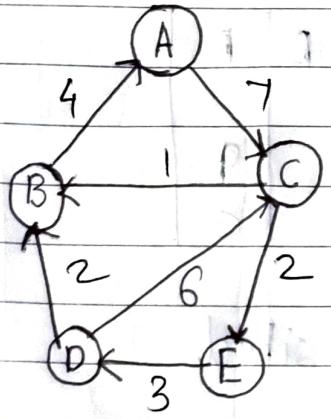
ISE-II

2122000090

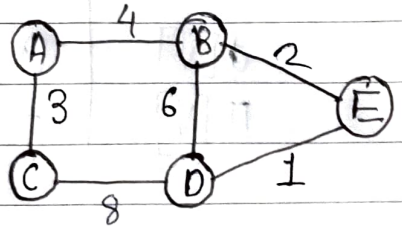
Division :- C
Roll no :- 04

Nikhil Umesh Achalkar

Q1.



Q2 DVR



Q3.

192.168.98.0

-TCS - 3 Subnets

Q4. 20.57.60.2

172.16.57.66

Q1] Taking A as source

nodes	A	B	C	D	E
cost — d[V]	0	∞	7	∞	∞
predecessor — Π[V]	-	-	A	-	-

now we have visited A node

now, Taking C as parameter

nodes	A	B	C	D	E
d[V]	0	8	7	∞	9
Π[V]	-	C	A	-	C

now C is visited

now taking B as parameter

nodes	A	B	C	D	E
d[V]	0	8	7	∞	9
Π[V]	-	C	A	-	C

now B is visited

now taking E as parameter

nodes	A	B	C	D	E
d[V]	0	8	7	12	9
Π[V]	-	C	A	E	C

Ans:-

To visit B node
cost is 8
path = A → C → B

To visit C node
cost = 7
path = A → C

To visit D node
cost = 12
path = A → C → E → D

To visit E node
cost = 9
path = A → C → E

Q2 DVR

Table for A :-

destination	cost	next hop
A	0	-
B	4	B
C	3	C
D	∞	-
E	∞	-

Table for B

destination	cost	next hop
A	4	A
B	0	-
C	∞	-
D	6	D
E	2	E

Table for C :-

destination	cost	next hop
A	3	A
B	∞	-
C	0	-
D	8	D
E	∞	-

Table for D :-

destination	cost	next hop
A	∞	-
B	6	B
C	8	C
D	0	-
E	1	E

Table for E :-

destination	cost	next hop
A	∞	-
B	2	B
C	∞	-
D	1	D
E	0	-

updated table for A

destination	cost	next hop
A	0	-
B	4	B
C	3	C
D	10	B
E	11	B

updated table for B

destination	cost	next hop
A	4	A
B	0	-
C	7	A
D	6	D
E	2	E

updated table for C :-

destination	cost	next hop
A	3	A
B	7	A
C	0	-
D	8	D
E	9	D

updated table for D :-

destination	cost	next hop
A	10	B
B	6	B
C	8	C
D	0	-
E	1	E

updated table for E :-

destination	cost	next hop
A	6	B
B	2	B
C	9	D
D	1	D
E	0	-

Q3. 192.168.98.0 TCS - 3

network mask (subnet mask) for class C

256.255.255.11000000

for 3 subnets

∴ Total no. of items in blocks = 256 - 192
= 64 ~~blocks.~~

of which usuable are 62 each

block 0	block 1	block 2	block 3
192.168.98.0	192.168.98.64	192.168.98.128	192.168.98.192
192.168.98.1	192.168.98.65	192.168.98.129	192.168.98.193
⋮	⋮	⋮	⋮
192.168.98.62	192.168.98.126	192.168.98.190	192.168.98.254
192.168.98.63	192.168.98.127	192.168.98.191	192.168.98.255

94] i) 20. 57 . 60. 2

$(20)_2 = 00010100$

$(57)_2 = 00111000$

$(60)_2 = 00111011$

$(2)_2 = 00000010$

Binary = 00010100.00111000.00111011.00000010

2) 172. 16. 57. 66

$(72)_2 = 10101100$

$(16)_2 = 00010000$

$(57)_2 = 00111000$

$(66)_2 = 01000010$

Ans:-

10101100.00010000.00111000.01000010

3) 10110101 00110111 11000101 10001100

2^7 2^3 2^2

Ans:- 181.27.99.140

4) 11110011 11001001 10111100 00010010

Ans 243.201.188.18