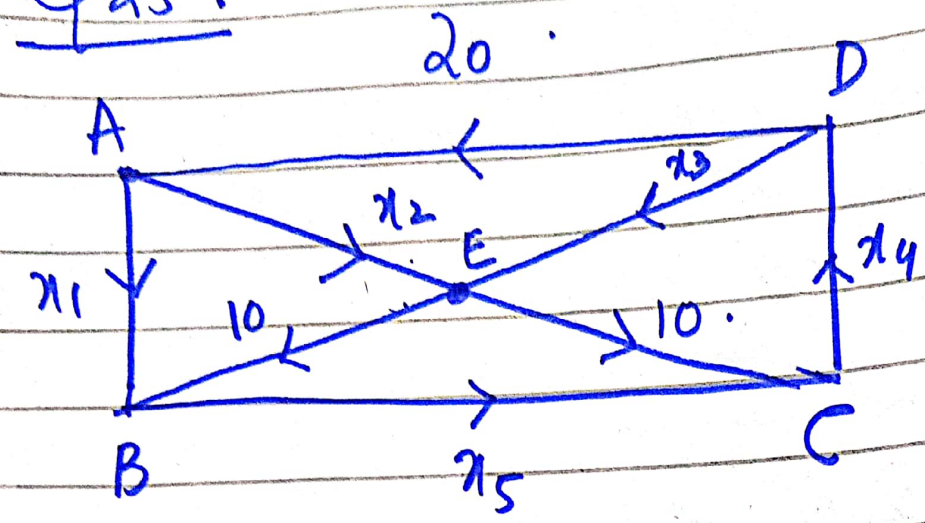
Q25.



if $x_1 = x_3 = 0$.

Eq of the Flow at various junction are as under.

At A:

No of Vehicles entd = No of vechicles Leave

$$20 = x_1 + x_2$$

At B: $x_1 + 10 = x_5$

At C. $x_5 + 10 = x_4$

At D: $x_4 = x_3 + 20$

At E: $x_2 + x_3 = 10 + 10$.

$x_2 + x_3 = 20$.

$x_1 + x_2 = 20$.

$x_1 + 0x_2 + 0x_3 + 0x_4 + 0x_5 = -10$

$0x_1 + 0 + 0 + x_4 - x_5 = 10$.

$0 + 0 + x_3 - x_4 + 0x_5 = -20$.

$0 + x_2 + x_3 + 0 + 0 = 20$.

$x_1 + x_2 + 0x_3 + 0x_4 + 0x_5 = 20$.

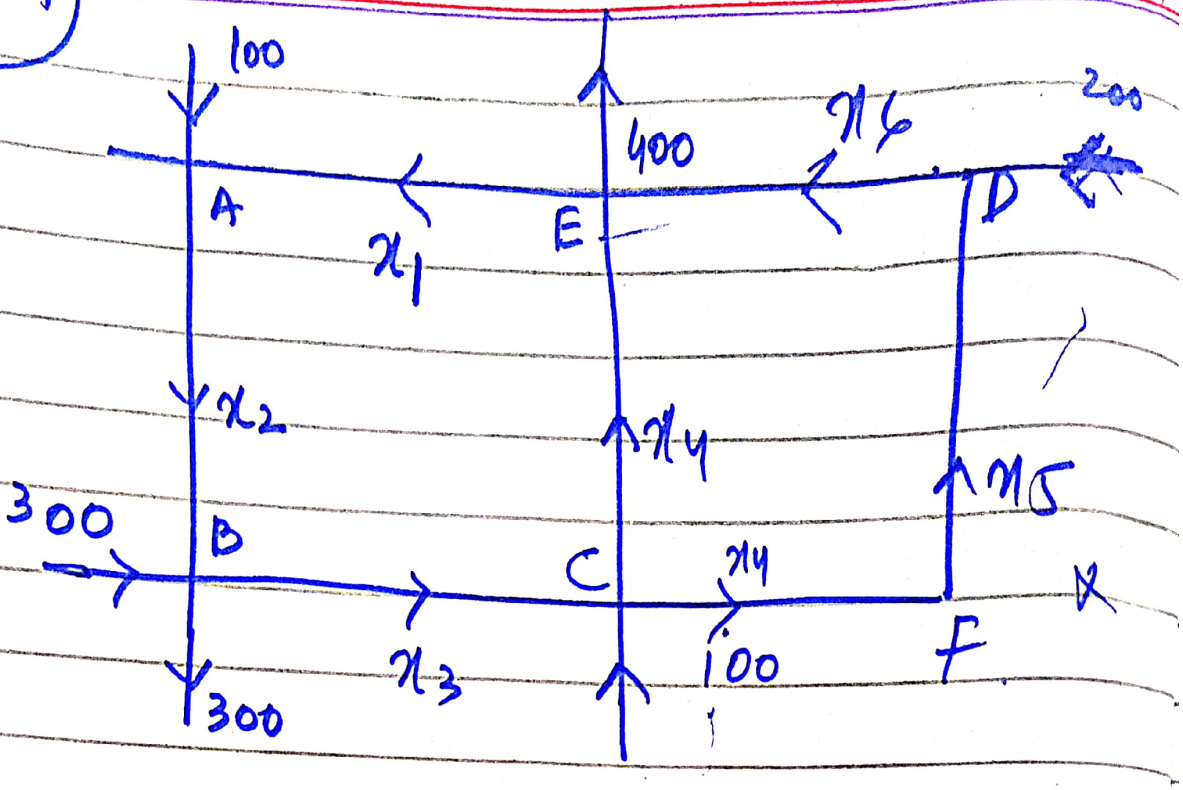
$0 + 0 - x_3 + x_4 + 0 = 20$.

$0 + x_2 + x_3 + 0 + 0 = 20$.

$-x_1 + 0 + 0 + 0x_4 + x_5 = 10$.

$0 + 0 + 0 + x_4 - x_5 = 10$

Q4



$x_1, x_2, x_3, x_4, x_5, x_6$. No of Vech along different Section of Various Roads.

At A: $x_1 + 100 = x_2$.

At B: $x_2 + 300 = x_3 + 300$

At C $x_3 + 100 = x_4 + x_4$

At D $x_5 + 200 = x_6$.

E.

$x^6 + y^4 = 400 + y$