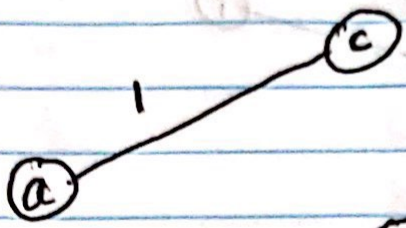
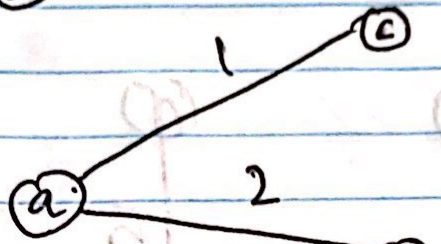
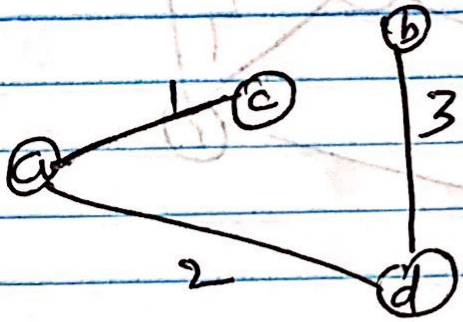
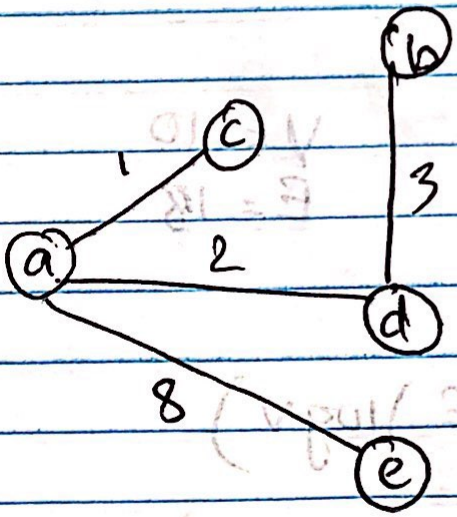
Prim's MST









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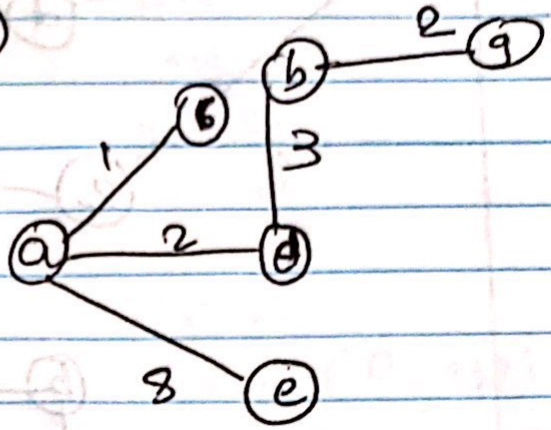

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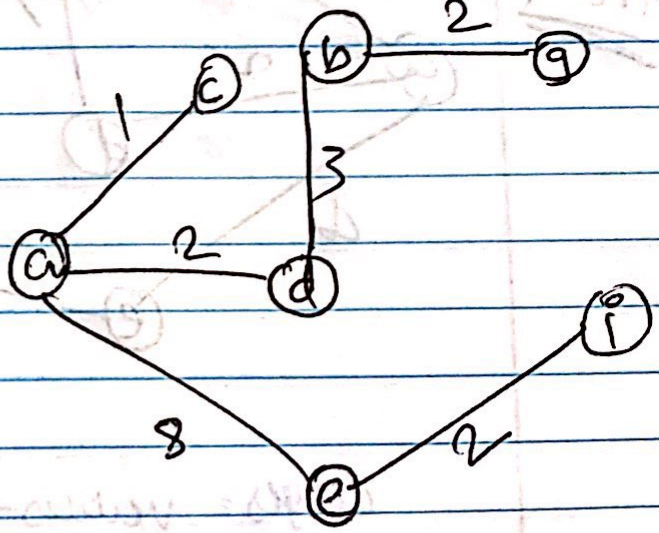

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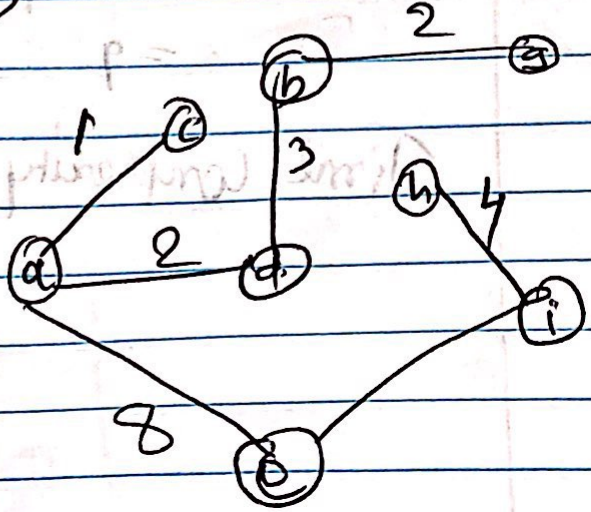

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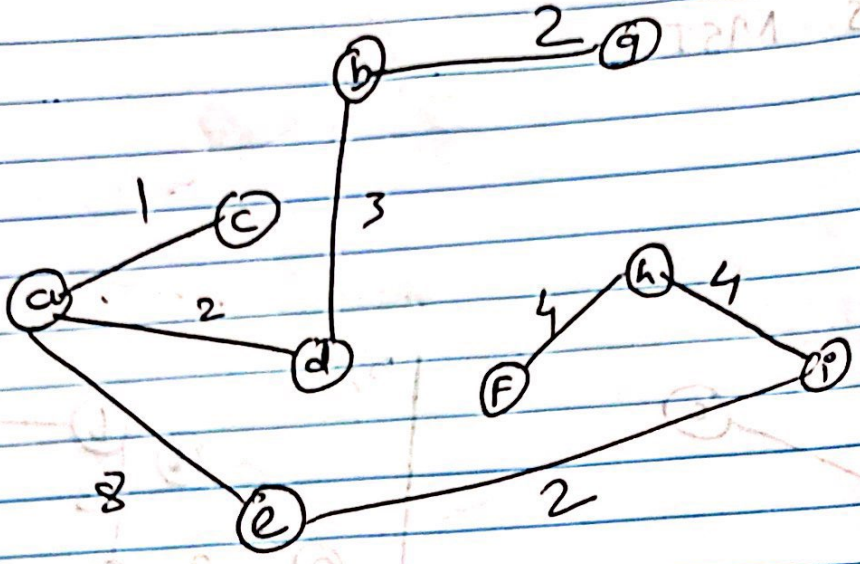
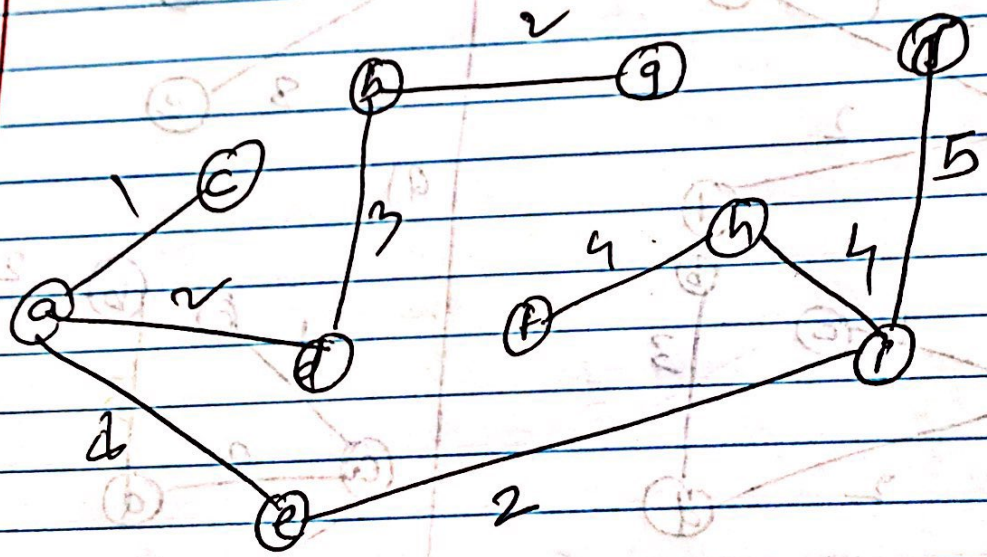


(9)

Final



edges = vertices − 1
= 10 − 1
= 9 end.

V = 10
E = 18

Time complexity = $O((V+E)\log V)$

$= O((10+18)\log 10)$

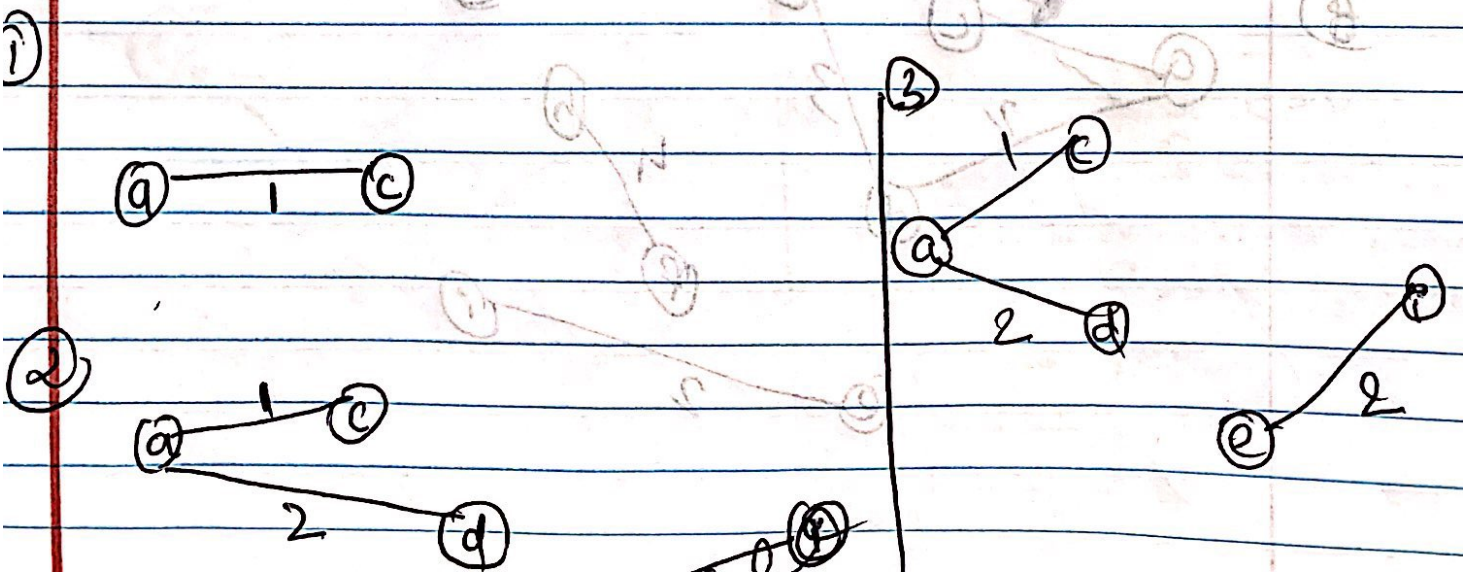
$= O(28 \log 10)$

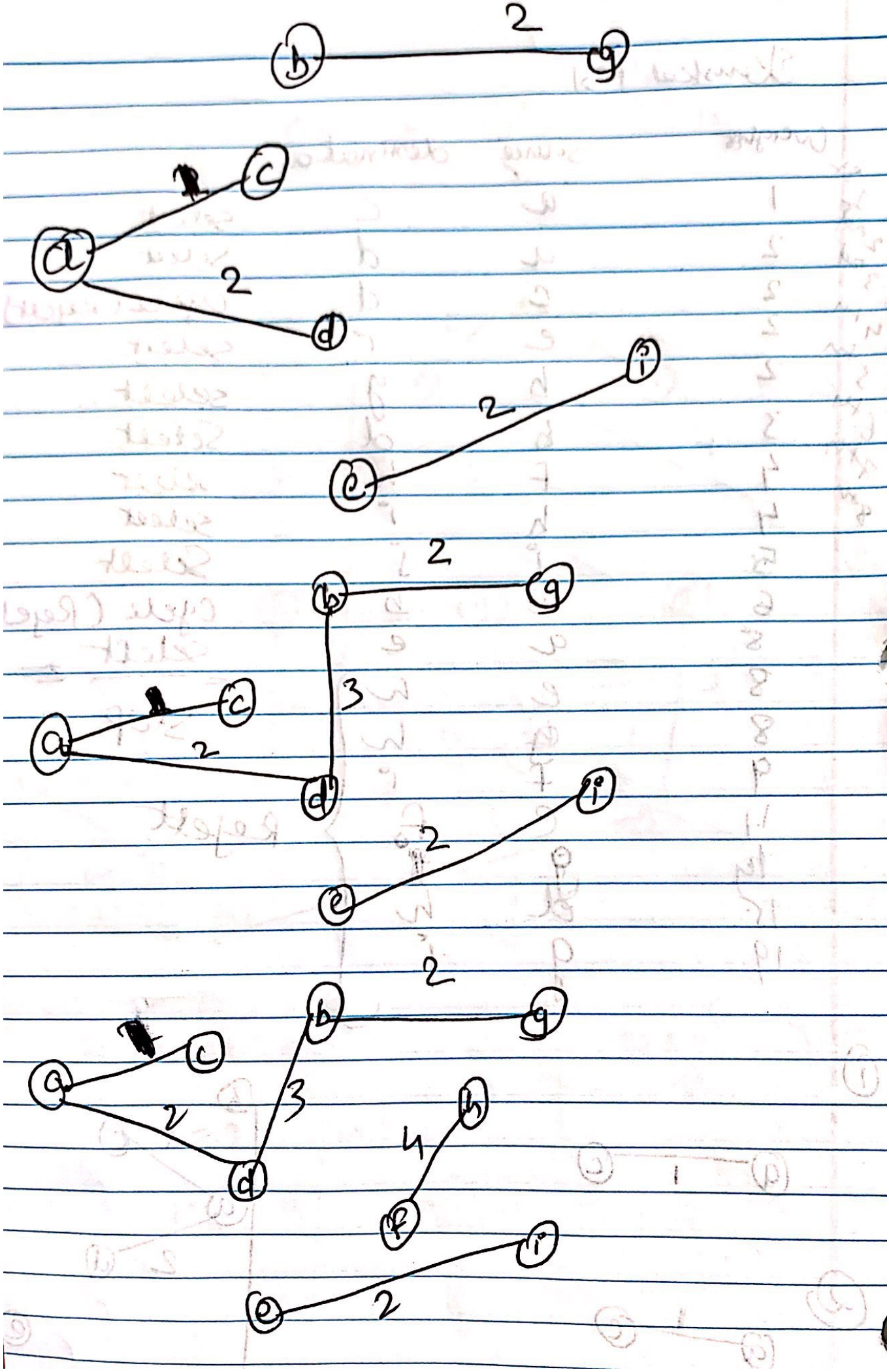
Kruskal MST

	Weight	source	destination	
1st	1	a	c	select
2nd	2	a	d	Select
3rd	2	c	d	cycle (Reject)
4th	2	e	i	select
5th	2	b	g	select
6th	3	b	d	Select
7th	4	f	h	select
8th	4	h	i	select
	5	i	j	Select
	6	a	b	cycle (Reject)
	8	a	e	select
	8	e	h	
	8	g	h	
	9	f	i	
	11	e	f	Reject
	14	g	g	
	15	d	h	
	19	g	j	

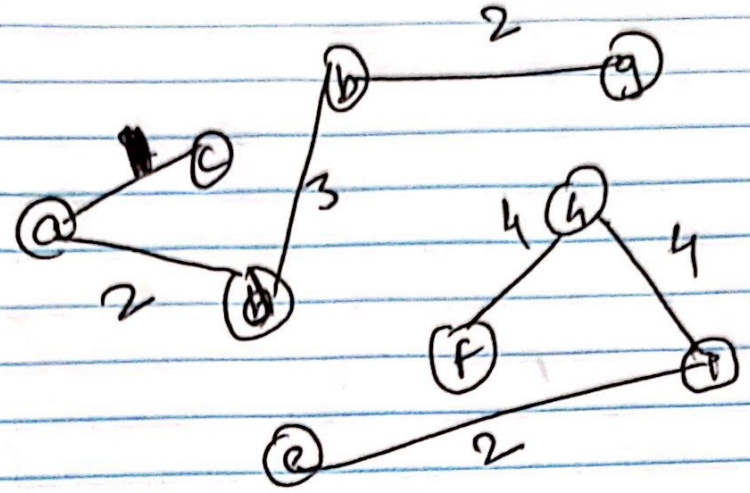
$e = V - 1$
$= 10 - 1$
$= 9$

STOP

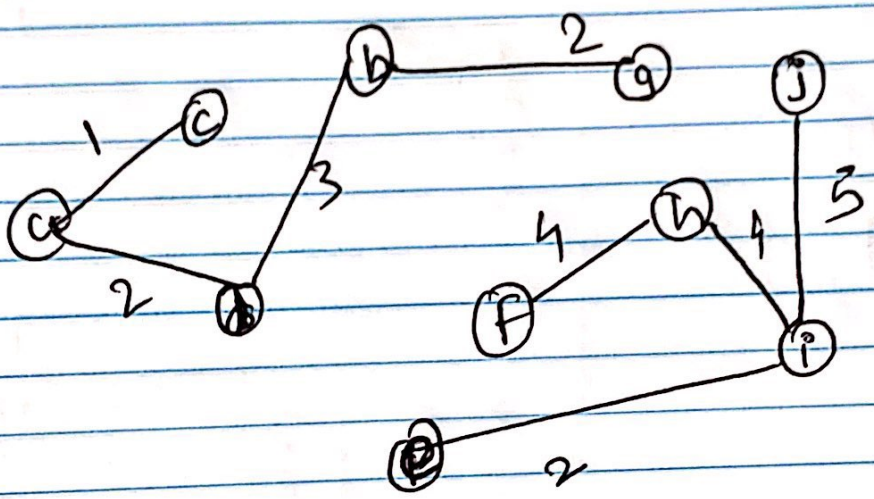




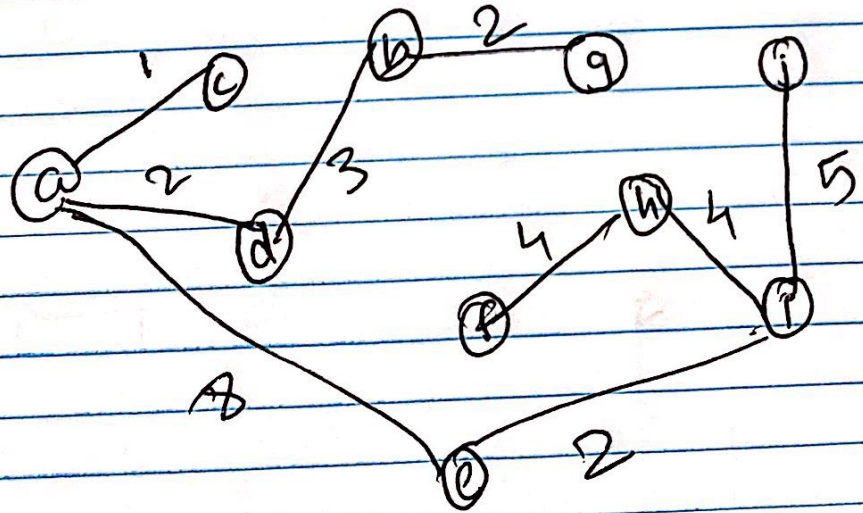
A)



B)



C)



here: e = V-1
So e = 10-1
when we have 9 edge stop the process

Time Complexity = (E log V)
= (18 log V)

So Prim have 28 log V and Kruskal have 18 log V comp
So, Kruskal is better then Prim to solve MST.