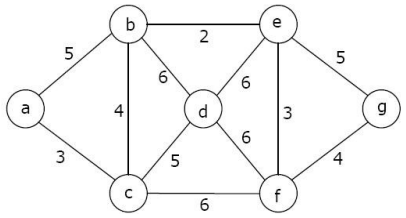
Week 3: In-Lecture Exercise:
Given the following graph and the weights of their edge



Use Kruskal's algorithm (basic one) to find a MST.

Solution:

Find edge:	Sort edge:
ab – 5	be – 2
ac – 3	ac – 3
bc – 4	ef – 3
bd – 6	bc – 4
be – 2	fg – 4
cd – 5	ab – 5
cf – 6	cd – 5
de – 6	eg – 5
df – 6	bd – 6
ef – 3	cf – 6
eg – 5	de – 6
fg – 4	df – 6

$A = \{\ \ \}$
$A = \{(b, e)\}$
$A = \{(b, e), (a, c)\}$
$A = \{(b, e), (a, c), (e, f)\}$
$A = \{(b, e), (a, c), (e, f), (b, c)\}$
$A = \{(b, e), (a, c), (e, f), (b, c), (f, g)\}$
$A = \{(b, e), (a, c), (e, f), (b, c), (f, g), (c, d)\}$

MST: