

$i=0$

initial set =  $\{1\} \{2\} \{3\} \{4\} \{5\} \{6\}$

mincost = 0

$(u,v) = \{1,3\}$

$j=1 \quad k=3$

the set becomes

$\{1,3\} \{2\} \{4\} \{5\} \{6\}$

mincost = 1

$i=1$

mincost = 2

$(u,v) = \{4,6\}$

mincost = 1+2=3

The set becomes =  $\{1,3\} \{2\} \{4,6\} \{5\}$

$i=2$

mincost = 3

$(u,v) = \{2,5\}$

$i=3$

mincost =  $3+3=6$

~~$(u,v) = \{ \}$~~

The set becomes =  $\{1,3\}, \{2,5\}, \{4,6\}$

$i=3$

mincost = 4

$(u,v) = \{3,6\}$

mincost = 6+4=10

$j=\{4,6\} \quad k=\{1,3\}$

The set becomes  $\{1,3,4,6\} \{2,5\}$

$i=4$

mincost = 5

$(u,v) = \{2,3\}$

mincost =  $10+5=15$

The set becomes  $\{1,3,4,6,2,5\}$

