WK 10 Quiz

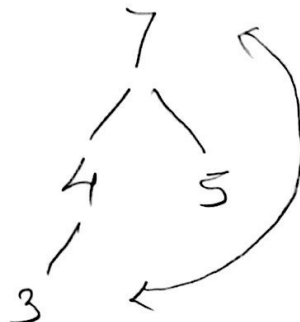Que 01   Heap sort   3 7 5 4

Initial elements

$$7$$

$$3 \quad 5$$

$$4$$

(step 1)

$\Rightarrow$

$$7$$

$$4 \quad 5$$

$$3$$

(step 2)

$$3$$

$$4 \quad 5 \qquad \textcircled{7}$$

max heap

$$5$$

$$3 \quad 4 \qquad \textcircled{7}$$

$\Rightarrow$

$$4$$

$$3 \qquad \textcircled{5} \; \textcircled{7}$$

max heap

$$4$$

$$3 \qquad \textcircled{5}\textcircled{7}$$

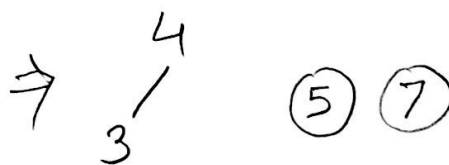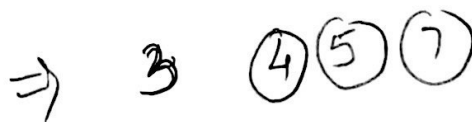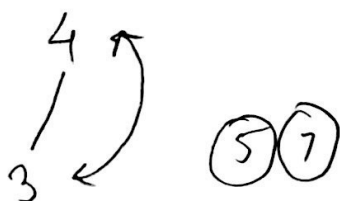$\Rightarrow \quad 3 \quad \textcircled{4}\textcircled{5}\textcircled{7}$
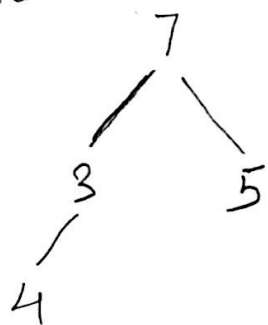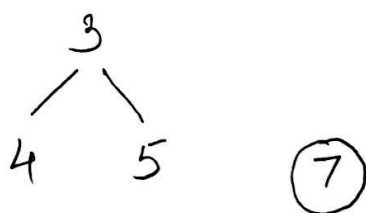
Que 02   Table Size 5

(1, 20), (2, 70), (42, 80), (4, 25), (12, 44), (14, 32), (17, 11), (13, 78), (37, 98)

	Key	value	Hash	Hash table Index
1	(1,20) 20		1 % 5	1
2	(2,70) 70		2 % 5	2
3	42	80	42 % 5	2
4	4	25	4 % 5	4
5	12	44	12 % 5	2
6	14	32	14 % 5	4
7	17	11	17 % 5	0
8	13	78	13 % 5	3
9	37	98	37 % 5	0

collision occurs as 2 is there at index 2