Bucket Size = 31.

a) Round 0

$$H_1 = \text{key mod } 9$$
 $SP \rightarrow 0$
 $12, 9$
 $17 \mod 2 = 1$
 17

when we do Rehash SP goes to bucket 1

10 mod 2=0

17 mod 4=1 $SP \rightarrow \begin{bmatrix} 0 & 0 & 12 \\ 1 & 17,1,9 \\ 2 & 2,10 \\ \hline 3 & 3 & 15,7 \end{bmatrix}$ 15 mod 4=3 1 mod 4=1 7 mod 4=3

 \leftarrow End of Round $0 \rightarrow$

overflow at Builcet 1, Rehashing at Builket D i.e., H3 = key mod 8

Overflow at Bucket 3, Rehashing at Bucket 1 key mod 8