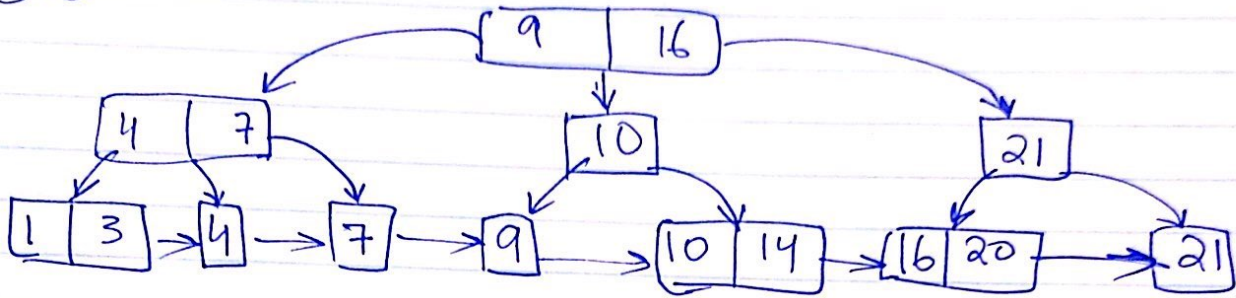


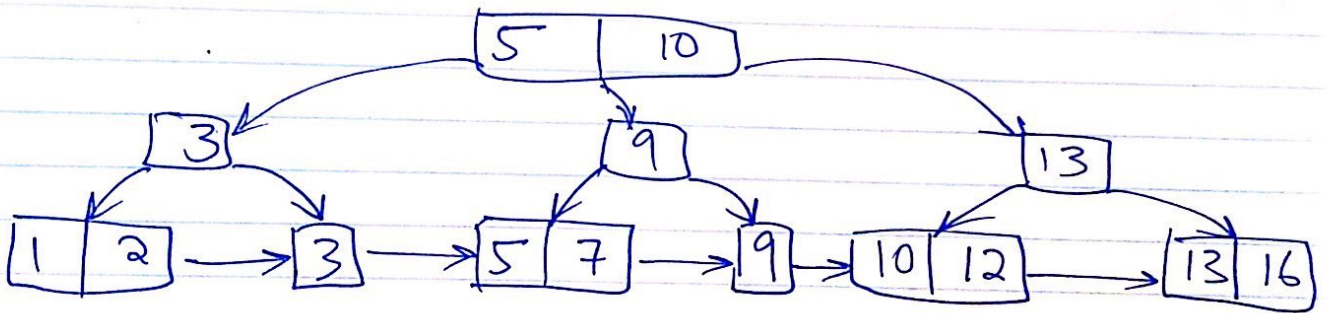
Muhammad  
Arham Khan  
21701848  
Section 2

HW - 5

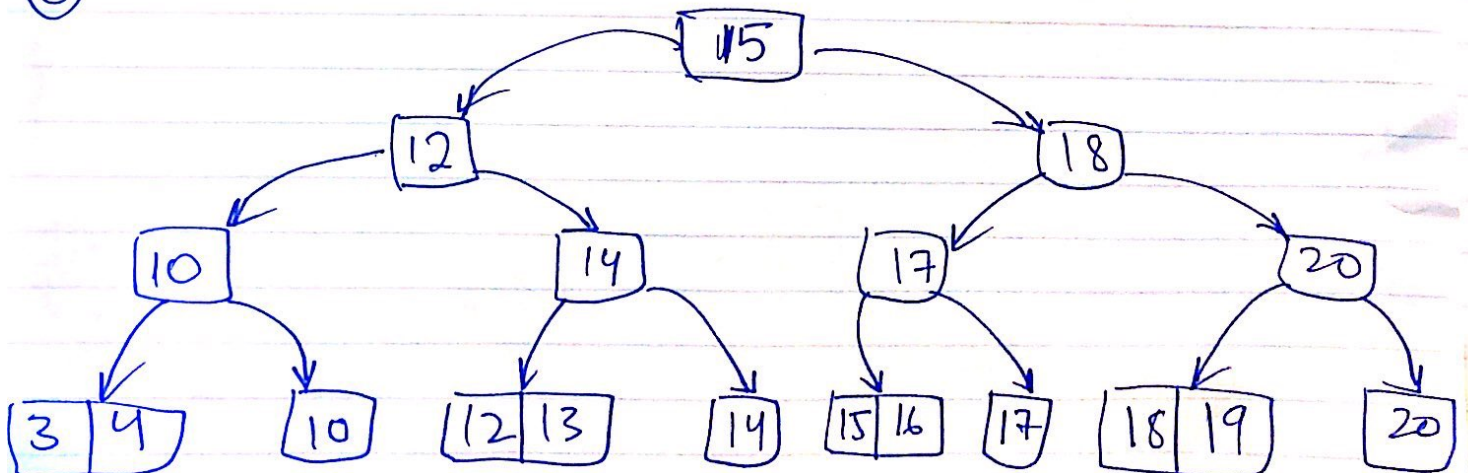
Q1) a)



b)



c)

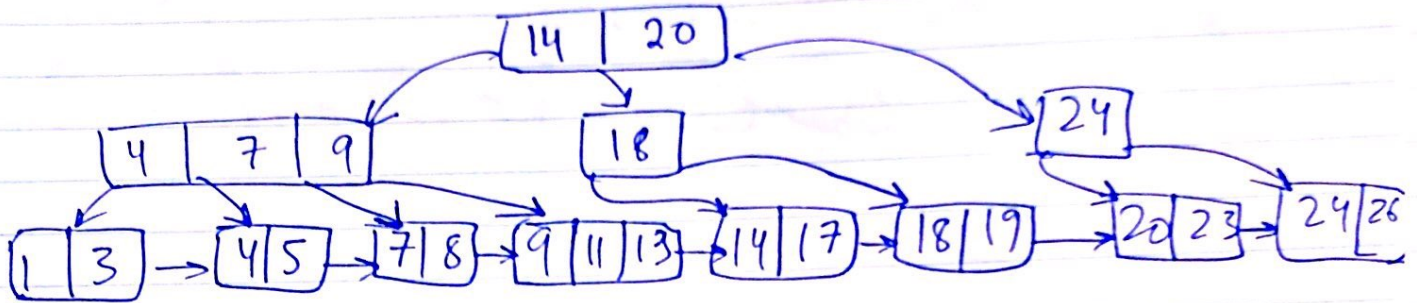


Q2

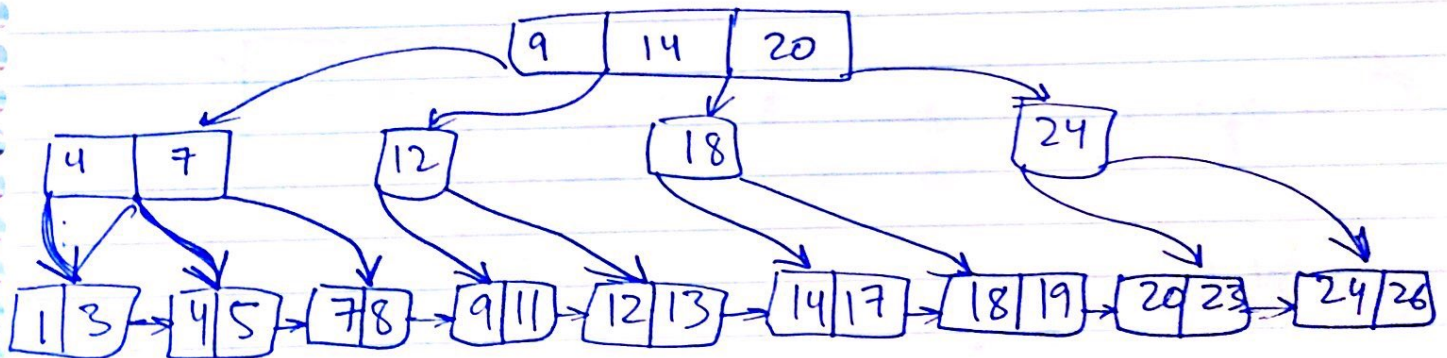
a

~~we will insert 5 :-~~

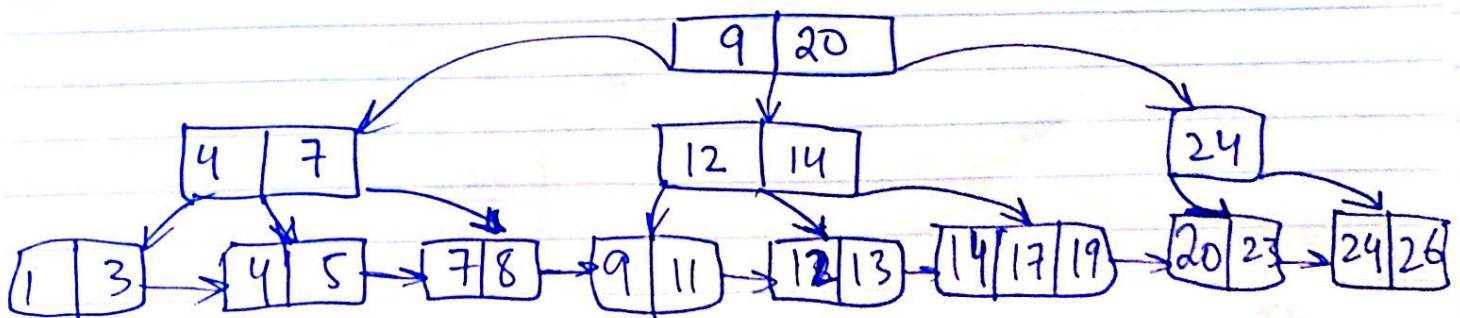
we will insert 5 :-



b we will insert 12 now :-

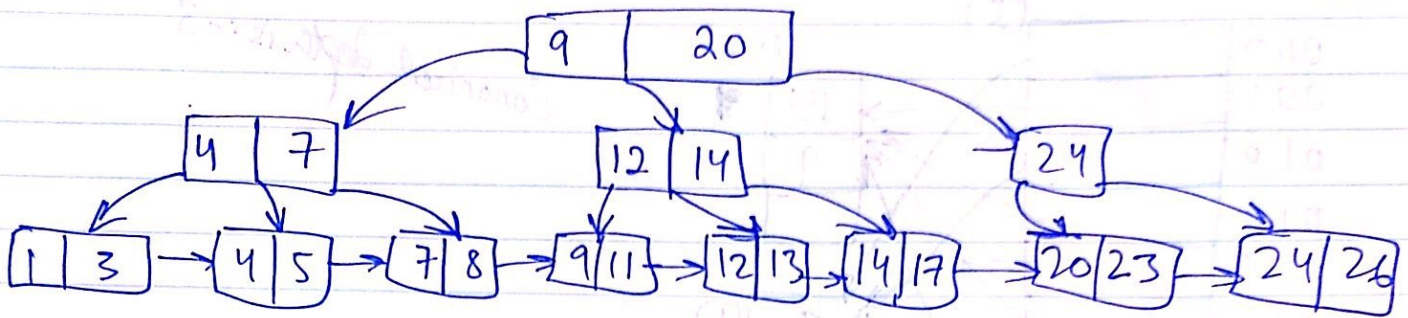


c we will now delete 18 from this :-



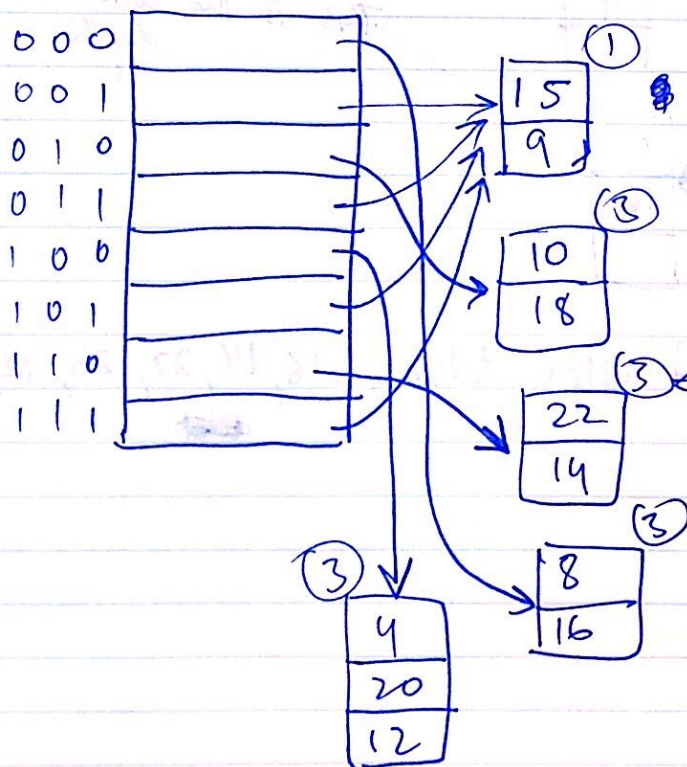


④ we will now delete 19 from the list



Q3

① The final hash table obtained would be :-



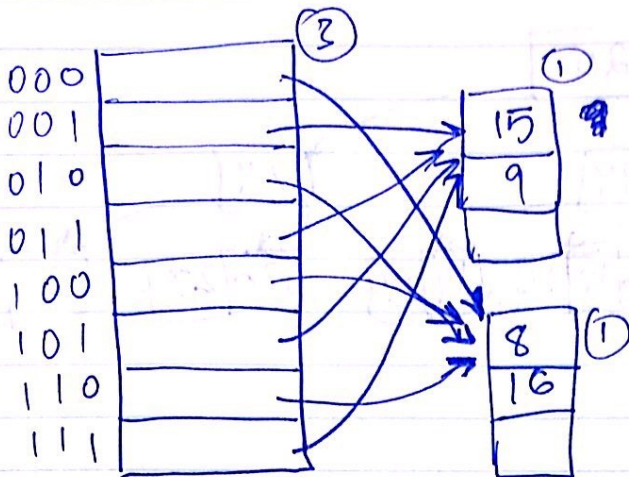
the canonical depth for this is 3

these are local depths

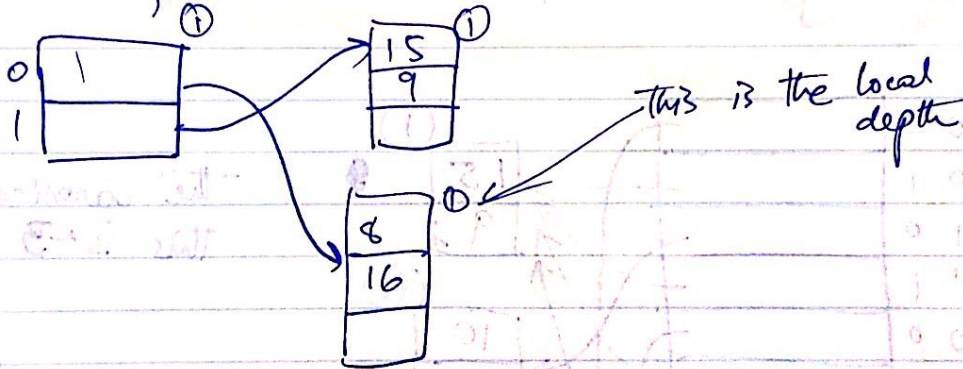
The insertions that cause the bucket splits are as follows :-

- 4
- 2
- 14

(b) The resulting hashtable after these operations is:-



and hence, the final hash table is



This table is achieved after deleting 18, 14, 22, 20, 12, 4, 10