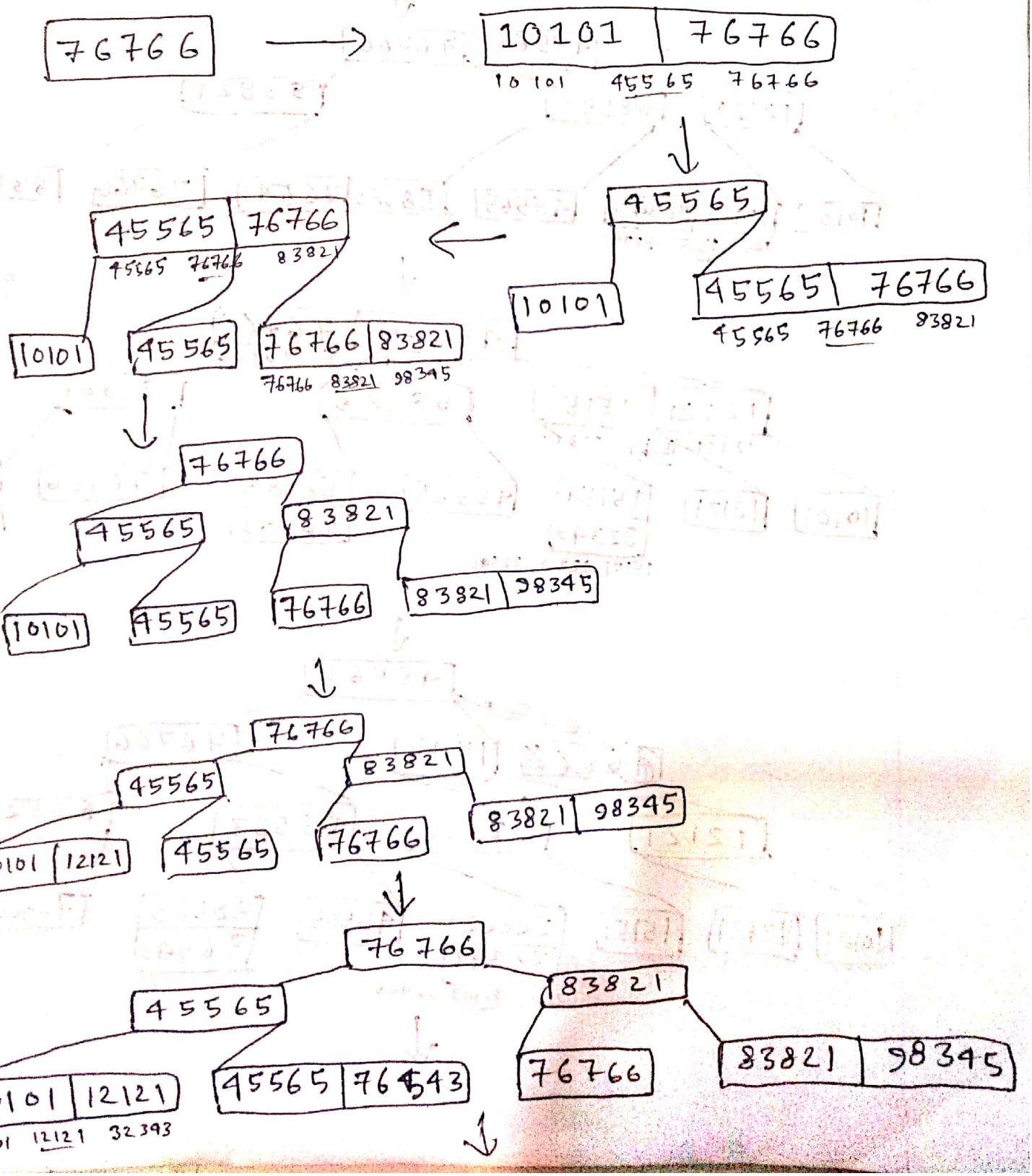
Name: Udoy Saha

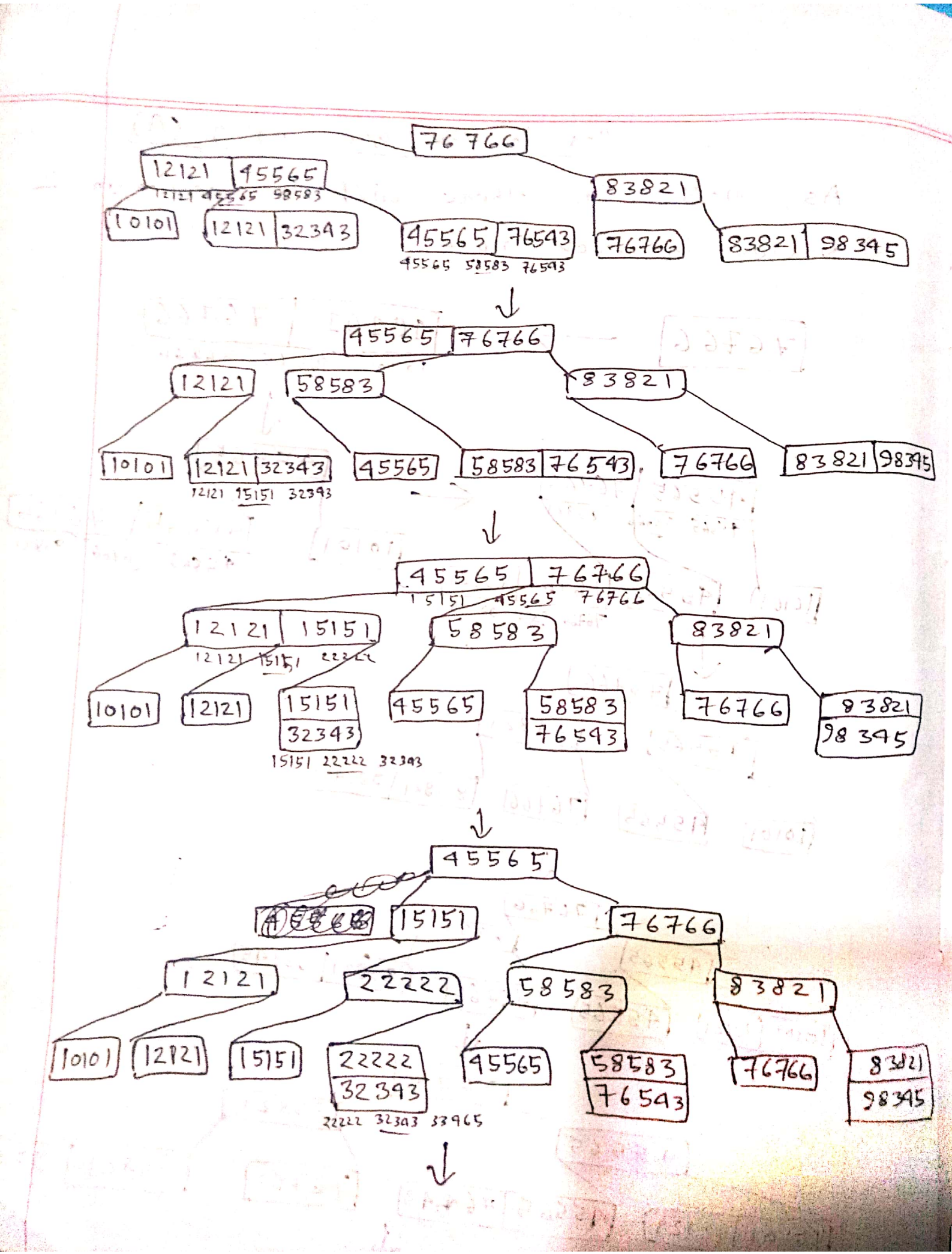
ID : 23341134

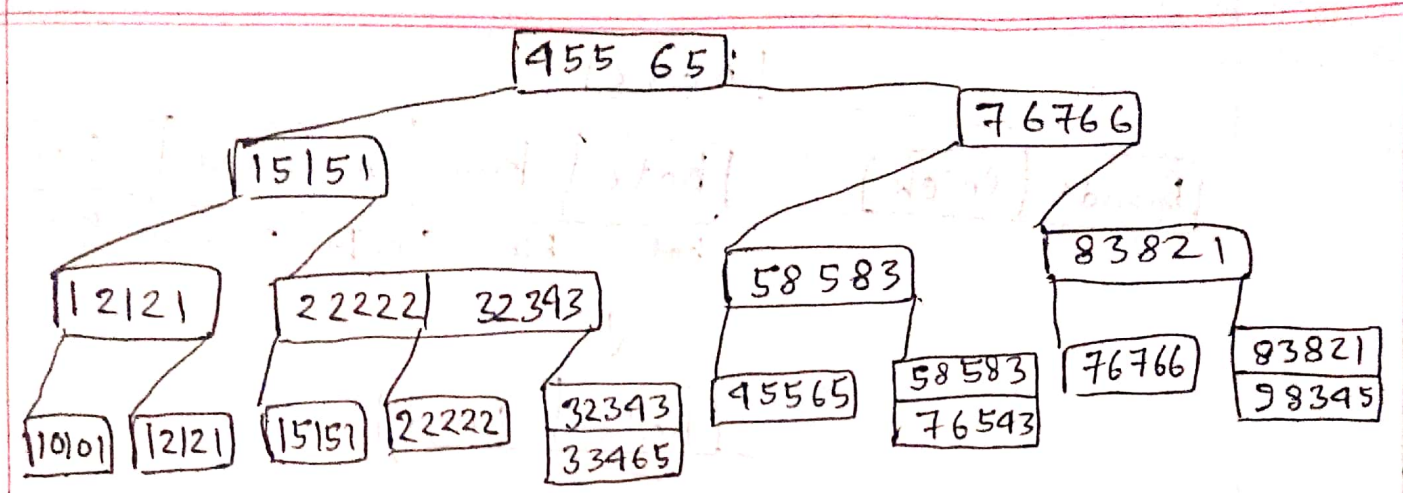
Section: 07

Ans to the ques no:- 1 (A)

As, $n = 3$, so there will be maximum 2 values in each node.

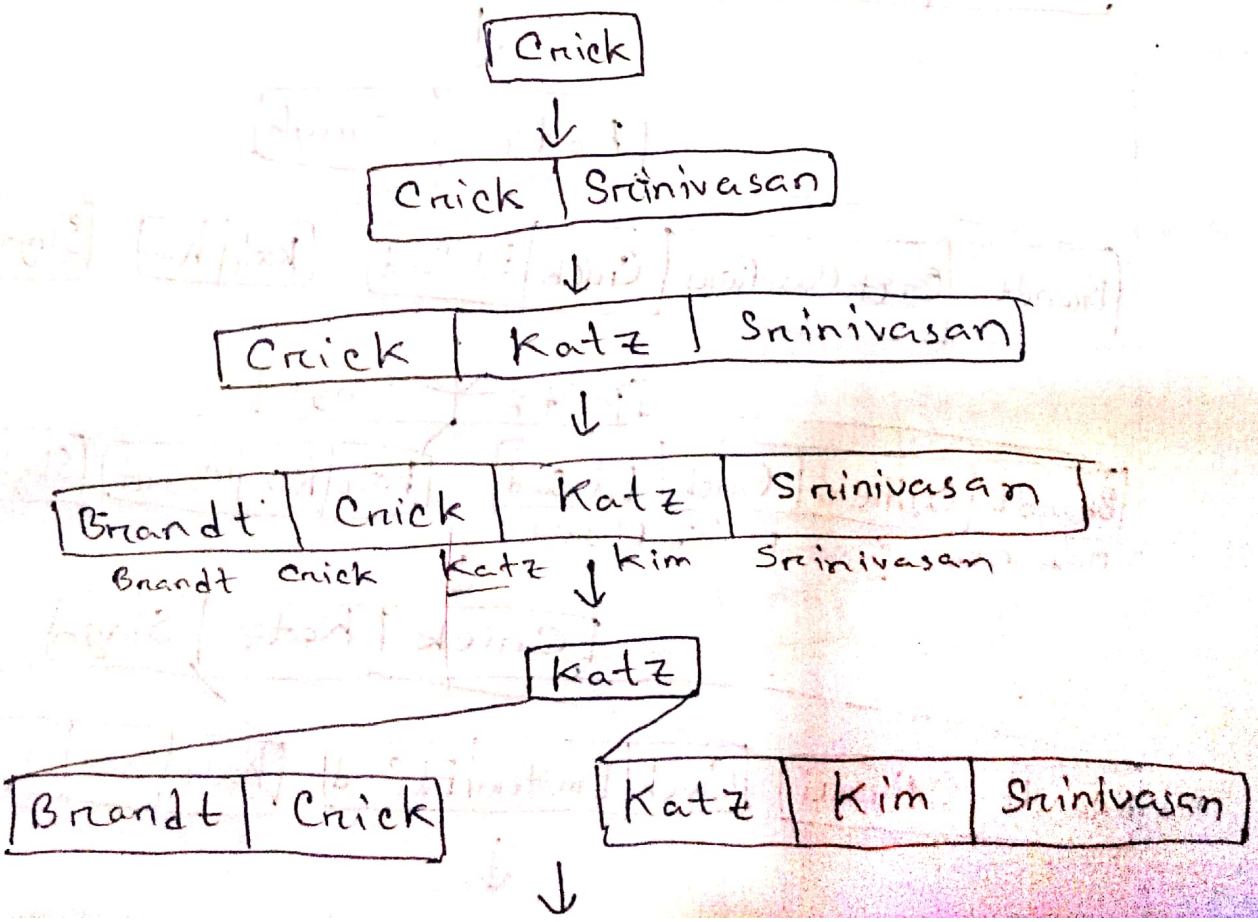


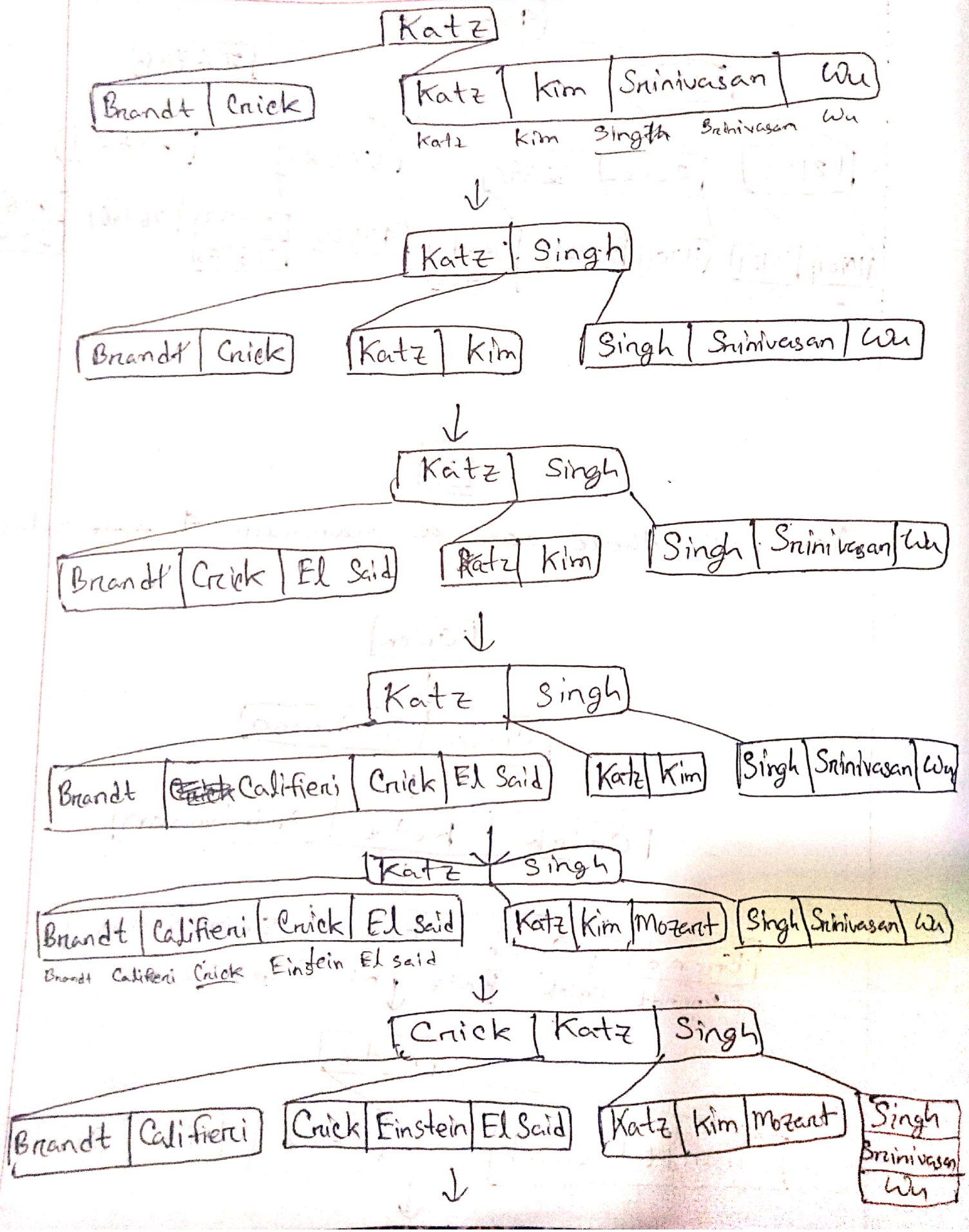

76766
12121 45565
10101 12121 32343 45565 76543 83821
76766 83821 98345
45565 76766
12121 58583 83821
10101 12121 32343 45565 58583 76543 76766 83821 98345
45565 76766
12121 15151 58583 83821
10101 12121 15151 32343 45565 58583 76543 76766 83821 98345
45565
12121 15151 22222 58583 76766 83821
10101 12121 15151 22222 32343 45565 58583 76543 76766 83821 98345

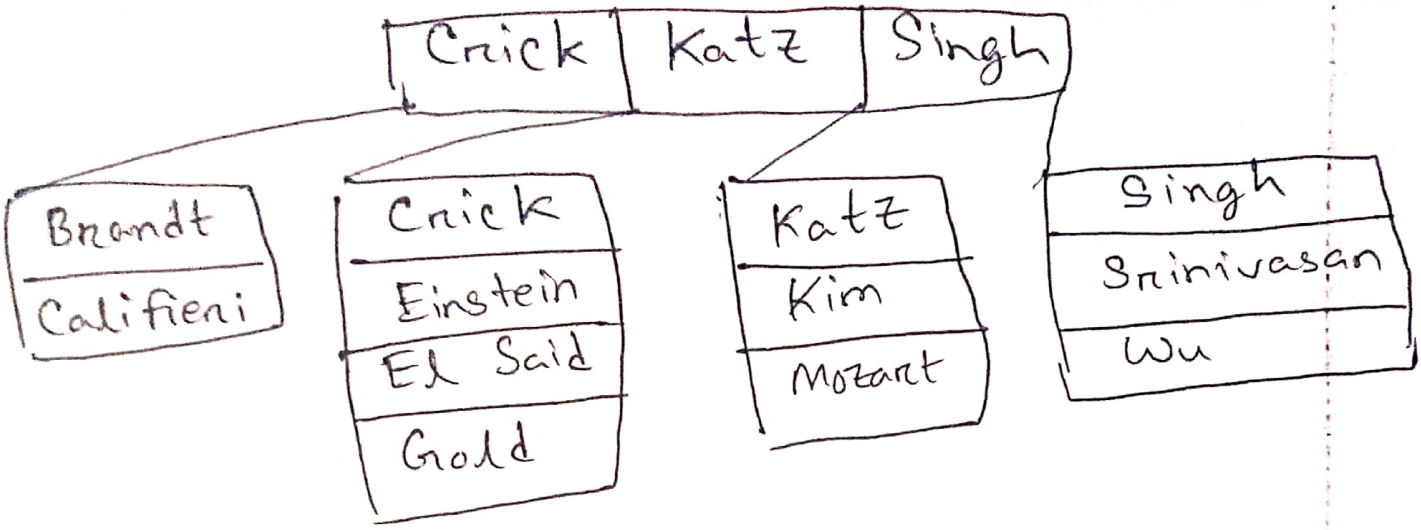


B

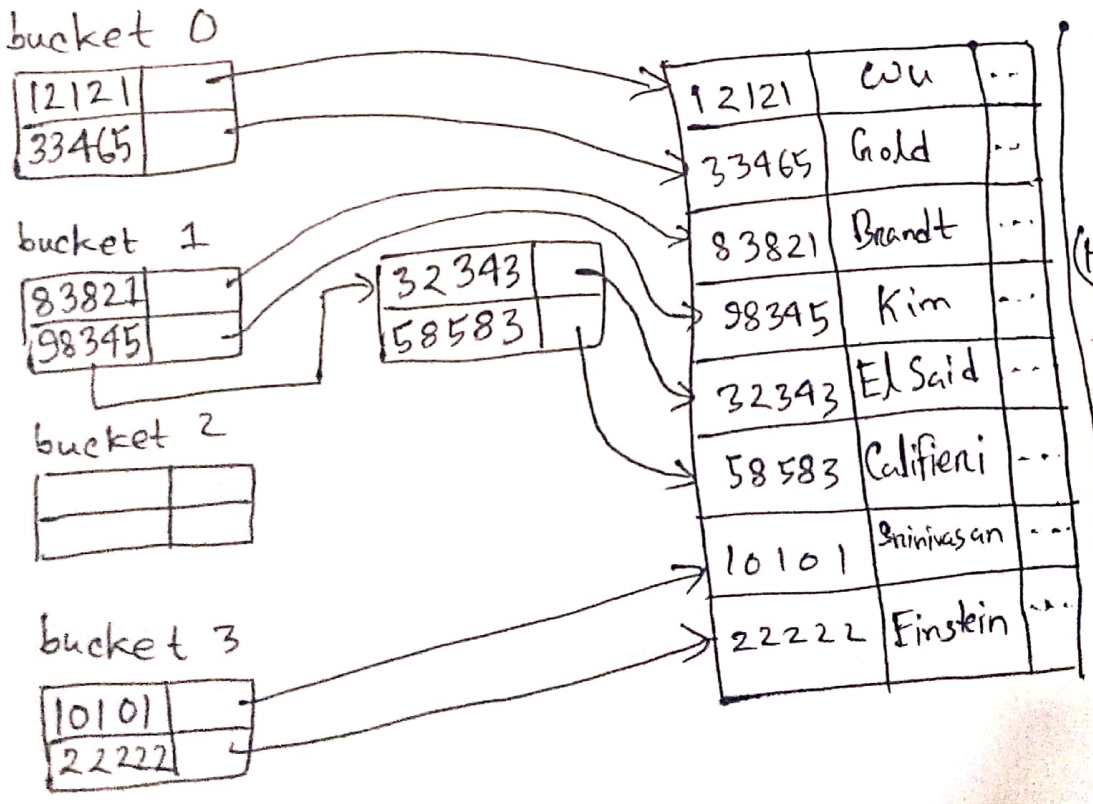
As n=5, there can be maximum 4 ~~node~~ values.




Katz
Brandt | Crick
Katz | Kim | Srinivasan | Wu
Katz Kim Singth Srinivasan Wu
Katz | Singh
Brandt | Crick
Katz | Kim
Singh | Srinivasan | Wu
Katz | Singh
Brandt | Crick | El Said
Katz | Kim
Singh | Srinivasan | Wu
Katz | Singh
Brandt | Califieri | Crick | El Said
Katz | Kim
Singh | Srinivasan | Wu
Katz | Singh
Brandt | Califieri | Crick | El said
Katz | Kim | Mozart
Singh | Srinivasan | Wu
Brandt Califieri Crick Einstein El said
Crick | Katz | Singh
Brandt | Califieri
Crick | Einstein | El Said
Katz | Kim | Mozart
Singh
Srinivasan
Wu



Ans to the ques no:- 2



$(7+6+7+6+6) \% 7 = 4$

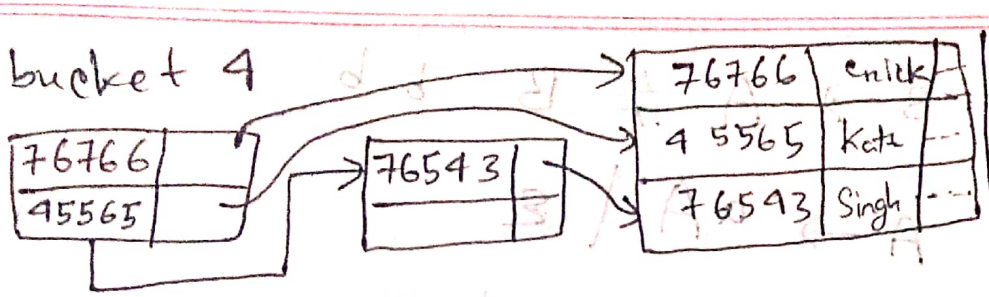
$(10+1+0+1) \% 7 = 3$

$(4+5+5+6+5) \% 7 = 4$

$(8+3+8+2+1) \% 7 = 1$

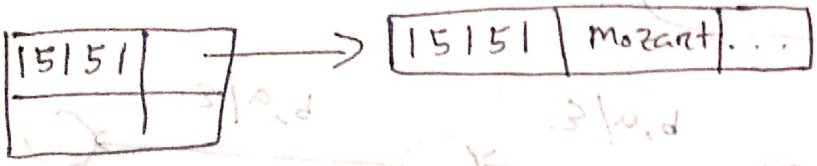
$(9+8+3+4+5) \% 7 = 1$

bucket 4



bucket 5

bucket 6



$(1+2+1+2+1) \% 7$
$= 0$

$(7+6+5+4+3) \% 7$
$= 4$

$(3+2+3+4+3) \% 7$
$= 1$

$(5+8+5+8+3) \% 7$
$= 1$

$(1+5+1+5+1) \% 7$
$= 6$

$(2+2+2+2+2) \% 7$
$= 3$

$(3+3+4+6+5) \% 7$
$= 0$