Ayesha Binte Hostofa. 1805062. 841 it of a soon weren and they (1/x) of 4 1 (1/8)

1. (1) 578 and 56 students and 56-2 = 54 are girlings the test where table size = 60. Linear probing being used here. bom A of a cold (1)

h(K) = K% m.

h'(K) = {K+i f % m/gmit alot is not found.

.. In unsuccessful searching running time complexity = 0 (1+x) = 0 (1+1/m) = 0 (1+54/66) = 0(1-9)which is a constant and upper bound

i slots will be required to find an empty slot in unear probing;

(T(m, n)) =  $\frac{60}{60-54} = \frac{60}{6}$ 

R(i)~ 200.

we need to go through 54/co='9 school Successful sourch for probing = D(mx) = D(mx) =P(R:9) = P(1.9). P (probability) = 09.

andoledis stora (2)a) # h(k,0) will be unsuccessfuli it's probability = 5 Show the = Mad , book retailable de kora & Baidaid sosuit og = 88 maga top the (ii) h(K) = b k / mod. 600 (K) = Kryn { K+i} 1.10. prixagmoif not found an tempty stot 14x3 - (1) (21) p (the element will be inserted within the first 106 probes) = 1 (1) as 1) (1) (1)  $||f||_{L^{1}} = ||5.5|| = 6 \text{ and } 5 \text{ is inserted}$ in the table of rm/27per will be distinct. Buidary ROBON Où fole 0.8 1-24-00 n-m= i = ((n,m)7) 7 9 9 OLE whole it is only a domaidle

(3) 
$$10, 22, 31, 4, 15, 28; 16, 17, 59.$$
  
 $m = 11.$ 

Linear probing in h'(K) = (k+i) 1/2 m.

0	22,		
1	59.		
2			
3			
4	4.		
5	15		
6	28		
6	16		
8.	17.		
9/	31.		
0	10		

nubers 15 à probe 2.
16, probe3.
17; probes 3.
59 probes 9.
These are 4'
clusters.

Quadrating probing.

h'(k) = (k+i2) %m.

0	22	(6+0) 11 -6.
Commence of the contract of th		(16+4) 7.11=6. (16+4) 7.11=9.
3	16.	([1491])
4	4.	probes - 4. for 16.
5	15	17'5 probe=2
8	28.	59.
	17.	(59+0)%.11.
8	59.	= 4.
9	31.	(59+1) 1.11
10	10.	(5944)1.11