Last name	
First name	
Group	

# Algorithmics Undergraduate $2^{nd}$ year - S3# Midterm #3 (C3) 5 mars 2019 - 14:45 Answer Sheets

1	
2	
3	
4	
5	

Answers 1 (Linear probing -2 points)

Present the collision resolution using the linear probing principle with an offset coefficient d=5:

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

### Answers 2 (Some questions -5 points)

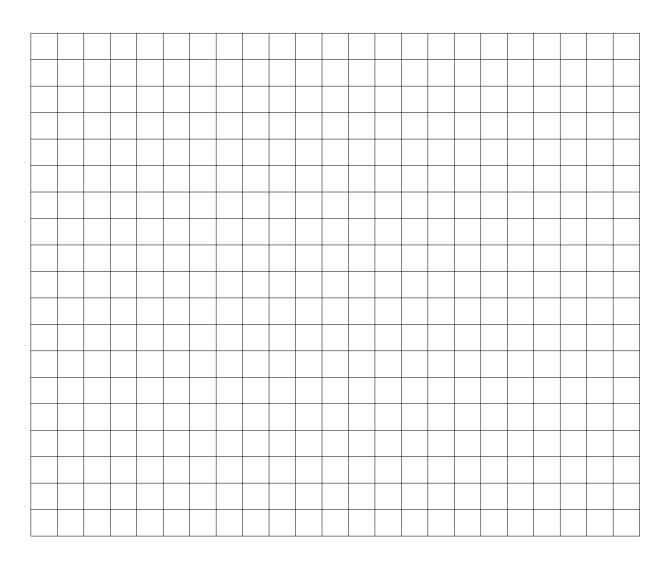
1.	Name three properties required of a hash function.
	(a)
	(b)
	(c)
2.	With which collision resolution method do secondary collisions appear?
3.	Which hashing method allows to solve the phenomenon of clustering generated by the linear probing?
4.	Name two basic hashing methods.
	(a) Method 1:
	(b) Method 2:
5.	Name a hashing method that uses a probe sequence function.
6.	Which collision resolution method does not need a hash table whose size is greater or equal than the number of keys to be hashed?

Answers 3 (Serialization -5 points)

1. Le vecteur de pères :

0	1	2	3	4	5	6	7	8	9	10	11

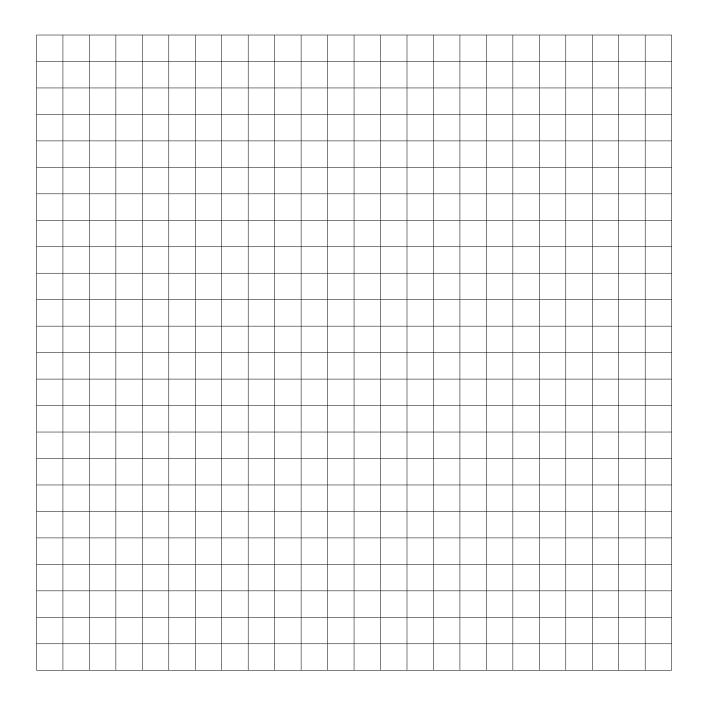
2. La fonction buildParentVect(T, n):



# Answers 4 (Ascending – 4 points)

#### ${\bf Specifications:}$

BtreeToList(B) returns the list of the keys of the B-tree B in increasing order.



# Answers 5 (B-tree measures – 4 points)

#### ${\bf Specifications:}$

occupation(B) returns the list of the keys of the B-tree B in increasing order.

