Last name	
First name	
Group	

Grade	

Algorithmics
Undergraduate 2^{nd} year - S3#
Midterm #3 (C3)
10 mars 2020 - 14h45
Answer Sheets

1	
2	
3	
4	
5	

Answers 1 **(Hashing –** ***3 points*****)**

1. Linear probing ($d = 3$) :

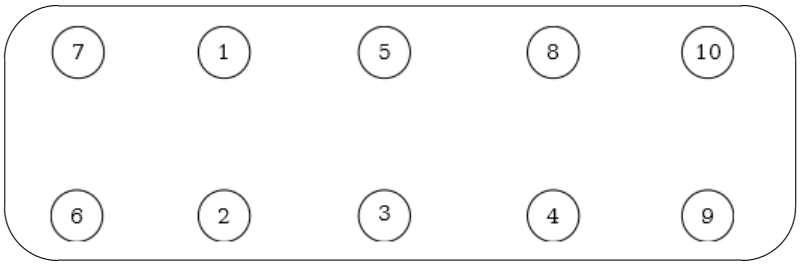
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

2. hashing with separate chaining:

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Answers 2 **(Draw to win –** ***2 points*****)**

1. Draw the digraph `G`:



2.

	1	2	3	4	5	6	7	8	9	10
indegree										

Answers 3 **(Equality – *5 points*)**

Specifications: The function `same(`T`,` B`)` tests whether T, a general tree in "classical" representation, and B, a general tree in *first child - right sibling* representation, are identical.

Answers 4 **(B-tree measures –** ***4 points*****)**

Specifications:

`occupation(`B`)` returns average number of keys per node of the B-tree B.

***Answers 5* (B-trees: Minimum deletion – *6 points*)**

1. Degree =

2. *Tree after deletion of 3:*

2. Specifications:

The function `__delmin(`B`)` deletes and returns the minimum value of the non empty B-tree B.