

Last name	
First name	
Group	

Grade	
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**Algorithmics**  
**Undergraduate 2<sup>nd</sup> year - S3**  
**Final Exam #3 (P3)**  
*January 5, 2021 - 9 : 30*  
**Answer Sheets**

1	
2	
3	
4	
5	

*Answers 1 (In the depth of the spanning forest – 3 points)*

1. *Spanning forest and extra-edges for the depth-first search of the graph in figure 1:*

2. *Meeting orders in prefix **pref** and suffix **suff**:*

	0	1	2	3	4	5	6	7	8	9	10
<b>pref</b>											
<b>suff</b>											



*Answers 4 (Get cycle – 5 points)*

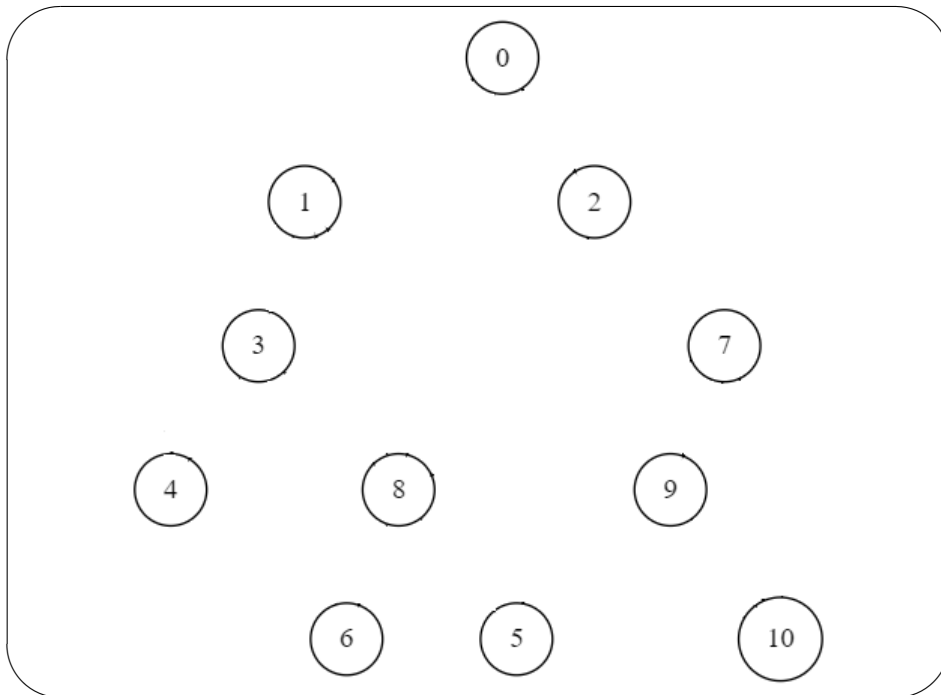
**Specifications:**

the function `get_cycle(G)` returns a cycle of the undirected graph  $G$ , an empty list if  $G$  is acyclic.

A large grid for writing the answer, consisting of 25 columns and 30 rows of empty cells.

**Answers 5 (What is this? – 3 points)**

1. The built graph ( $NG$ ):



2. For each vertex  $s$ , during the traversal:

(a) What does  $D[s]$  represent?

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(b) What does  $P[s]$  represent?

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