Prep 11 Quiz

This is a preview of the published version of the quiz

Started: Mar 21 at 11:14am

Quiz Instructions

Readings

Please read the following parts of the Course Notes (https://www.teach.cs.toronto.edu/~csc165h/winter/resources/csc165_notes.pdf).

- Chapter 6, pp.113–122.

General instructions

You can review the general instructions for all prep quizzes at this page. Remember that you can submit multiple times! You might consider printing this quiz out so that you can work on paper first.

<table>
<thead>
<tr>
<th>Question 1</th>
<th>1 pts</th>
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<tbody>
<tr>
<td>Which of the following are graphs?</td>
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<td>(Hint: Draw each one.)</td>
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<tr>
<td>□ V₂ = {Toronto, Montreal, Vancouver, Edmonton}</td>
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<tr>
<td>E₂ = { (Toronto,Montreal), (Toronto,Vancouver), (Toronto,Edmonton) }</td>
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<tr>
<td>□ V₃ = {a, b, c}</td>
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<tr>
<td>E₃ = { (a,b), (b,c), (b,d), (a,c) }</td>
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<tr>
<td>□ V₁ = {1, 2, 3, 4}</td>
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<tr>
<td>E₁ = { (1,2), (1,3), (2,2), (2,3), (4,2), (4,3) }</td>
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<table>
<thead>
<tr>
<th>Question 2</th>
<th>1 pts</th>
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<tr>
<td>List all neighbours of vertex b in the following graph G = (V,E). (Hint: Draw the graph.)</td>
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</table>
Question 3

Which of the following are paths in the graph $G = (V,E)$ defined as follows? (Hint: Draw the graph.)

$$
V = \{1,2,3,4,5\}
$$
$$
E = \{(1,2), (1,4), (1,3), (2,3), (2,5), (4,3), (4,5), (3,5)\}
$$

- 1, 2, 4, 5
- 4
- 1, 2, 3, 1, 4
- 1, 2, 3

Question 4

What is the length of the path 3, 4, 1, 2 in graph $G = (V,E)$ defined as follows? (Hint: Draw the graph.)

$$
V = \{1,2,3,4,5\}
$$
$$
E = \{(1,2), (1,4), (1,3), (2,3), (2,5), (4,3), (4,5), (3,5)\}
$$
Question 5

Select every pair of vertices that is connected in the following graph $G = (V,E)$. (Hint: Draw the graph.)

$V = \{ 1, 2, 3, 4, 5, 6, 7 \}$
$E = \{ (7,3), (3,4), (5,6), (1,3), (2,5), (1,4) \}$

- 7, 7
- 1, 7
- 1, 3
- 1, 2
- 4, 5

Question 6

Select every pair of vertices that is connected in the following graph $G = (V,E)$. (Hint: Draw the graph.)

$V = \{ 1, 2, 3, 4, 5, 6, 7 \}$
$E = \{ (7,3), (3,4), (5,6), (1,3), (2,5), (1,4) \}$

- 1, 3
- 1, 7
- 7, 7
- 4, 5
1, 2