United International University
DSA 1 Lab - Section A
Final Exam
Total: 15   Time: 45 minutes

1. Write a program to keep track of immediately parent of all the vertices while performing Breadth First Search in a graph.
   The first line of the input will contain v (vertices) and e (edges). The next e number of lines contains the list of edges. You have to create the Adjacency Matrix first then do the rest of the code. Consider 0 as the source and the parent of the source will always be -1; [10 marks]

Sample Input	Sample Output
10 12 0 5 0 2 0 1 1 4 1 3 2 5 3 7 4 9 4 8 5 6 8 9 4 3	0 − -1 1 − 0 2 − 0 3 − 1 4 − 1 5 − 0 6 − 5 7 − 3 8 − 4 9 − 4
5 6 0 3 0 2 0 1 0 4 1 2 2 4	0 − -1 1 − 0 2 − 0 3 − 0 4 − 2

2. Write a program to output the sum of all the nodes that contain an even number.
   You have to create the BST first then do the rest of the coding
   Example: giving the following BST as input will result in
   Sum: 42   [10]