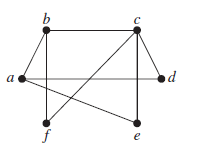
Subject: Discrete Structure

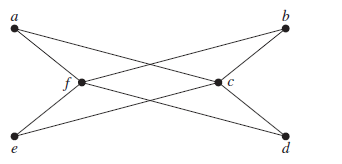
Instructor: Saifullah Jan

\_\_\_\_\_\_\_\_\_\_\_ONLINE FINAL Assignment Spring 2019\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Note: Attempt this assignment on a paper clearing mentioning your ***Name, ID NO, Class timing (Monday / Wednesday)*** at the top of answer sheet. Once complete than take a picture of your answer sheet, convert pictures to pdf. (Make one pdf file) and upload it to sic.

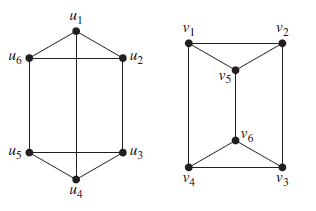
Q 1: Determine whether the graphs are bipartite.



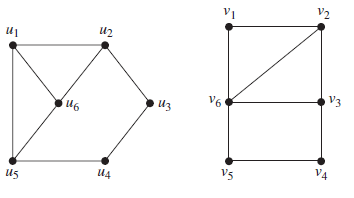


1. (ii)

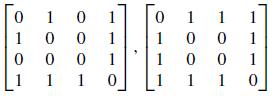
Q 2: Determine whether the given pair of graphs is isomorphic.



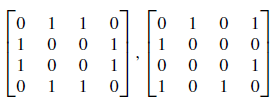
(i)

  
 (ii)

Q 3: Are the simple graphs with the following adjacency matrices isomorphic?

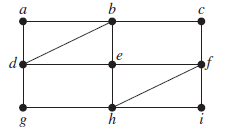
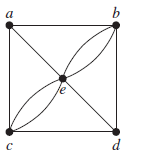


(i)



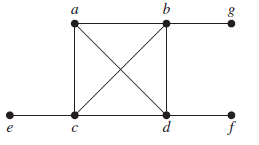
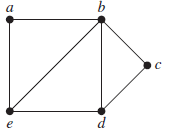
(ii)

Q 4: Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.

1. (ii)

Q 5: Determine whether the given graph has a Hamilton circuit. If it does, find such a circuit. If it does not, give an argument to show why no such circuit exists.

1. (ii)