# Hibernia College Section 5 Graph Theory

5.1 What is a Graph

5.1.2 Degree of a vertex

5.1.3 Some special graphs

5.2 Paths Cycles and connectivity

5.3 Isomorphisms of Graphs

5.4 Adjacency matrices and adjacency lists

(5.4.1) Adjacency Matrix of a graph

(5.4.2) Adjacency List

## Exam Questions

Let G be a graph and let u and v be vertices of G.

Say what is meant by the degree of v.

Say what is meant by saying that u and v are adjacent.

State, without proof, a result connecting the number of edges of G with the degree of the vertices.

A graph is called k-regula if each of the vertices has degree k.