

Answer the questions in the space provided below. You may use the back of the page if you need more space. Time: 15 minutes.

Name and section: _____

1. Let $G = (V, E)$ be an undirected graph with vertices

$$V = \{v_1, v_2, v_3, v_4, v_5, v_6\}$$

and edges

$$E = \{\{v_1, v_2\}, \{v_1, v_3\}, \{v_1, v_4\}, \{v_2, v_3\}, \{v_2, v_6\}, \{v_3, v_5\}\}$$

- (a) Draw a graphical presentation of the graph G . (40)
- (b) What is the degree of vertex v_2 ? (20)
- (c) Is G a bipartite graph? Justify your answer. (40)