

## Quiz #4

Name: ..... SSN: ..... Row:

**Instructions:** Do *ONLY* **four** of the following questions. **Circle** the questions which you want to be graded and **cross out** those which you do **not** want to be graded.

**NOTE:** *If you do not follow the instructions above, you may lose some points.*

**Question 1:** (5 points) What is the degree sequence of  $\overline{C}_n$ ?

**Question 2:** (5 points) When does  $\overline{C}_n$  have an Euler cycle?

**Question 3:** (5 points) Let  $G$  be a simple graph with a degree sequence  $k_1, k_2, k_3, k_4, k_5, k_6, k_7$ . What is the degree sequence of  $\overline{G}$ ?

**Question 4:** (5 points) Let  $G$  be a simple graph with a degree sequence  $k_1, k_2, k_3, k_4, k_5, k_6, k_7$ . How many edges does  $\overline{G}$  have?

**Question 5:** (5 points) Let  $G$  be a simple graph with  $n$  vertices and  $k$  edges, how many edges does  $\overline{G}$  have?

**Question 6** (5 points) What is the degree sequence of  $K_n$ ?

**Question 7** (5 points) When does  $K_n$  have an Euler cycle?

**Question 8** (5 points) How many edges does the  $n$ -cube have?