

King Saud University College of Business Administration Quantitative Analysis Department (QUA)

## **Statistics for Managers**

## QUA 508

TAKE\_HOME FINAL EXAM

**Duration: 48 hours** 

Name: Student ID:

Note:

- Provide answers for the all questions.
- Arrange your answers such that every question has its answer below the question.
- You should interpret all results.
- You must work in the exam individually and seek NO assistance from anyone.

Use the data in the attached Excel file (First City Real Estate) to answer all the following queries and questions:

- 1. Preform an appropriate descriptive statistic for all variables in the data (that includes frequency tables and graphs as well as numerical descriptive)
- 2. Test the hypothesis that the mean (average) list price for houses with one Garage is less than the mean (average) list price for houses with two Garages
- 3. Test if there are differences among the means of the list price for houses with 2, 3, and 4 bedrooms.
- 4. Explore the relationship between the list price and the square feet, also the relationship between the list price and the age.
- 5. Perform a regression analysis to predict the list price using both square feet and age the house.
- 6. Check the assumptions of the regression model and make sure it is appropriate for prediction.
- 7. Predict the list price of a house with 2000 square feet and 25 years of age.