**Regression**

**TOTAL POINTS 15**

1.Question 1

**Multiple Linear Regression** is appropriate for: x



Predicting the sales amount based on month



Predicting whether a drug is effective for a patient based on her characterestics



Predicting tomorrow's rainfall amount based on the wind speed and temperature

3 points

2.Question 2

Which of the following is the meaning of "**Out of Sample Accuracy**" in the context of evaluation of models?



"Out of Sample Accuracy" is the percentage of correct predictions that the model makes on data that the model has NOT been trained on.



"Out of Sample Accuracy" is the accuracy of an overly trained model (which may captured noise and produced a non-generalized model)

3 points

3.Question 3

When should we use **Multiple Linear Regression**?



When we would like to predict impacts of changes in independent variables on a dependent variable.



When we would like to identify the strength of the effect that the independent variables have on a dependent variable.



When there are multiple dependent variables

3 points

4.Question 4 x

Which of the following statements are **TRUE** about **Polynomial Regression**?



Polynomial regression fits a curve line to your data.



Polynomial regression can use the same mechanism as Multiple Linear Regression to find the parameters.



Polynomial regression models can fit using the Least Squares method.

3 points

5.Question 5

Which sentence is **NOT TRUE** about **Non-linear Regression**?



Nonlinear regression is a method to model non linear relationship between the dependent variable and a set of independent variables.



For a model to be considered non-linear, y must be a non-linear function of the parameters.



Non-linear regression must have more than one dependent variable.

3 points