**MT5113 – Next Generation Management**

**Quantitative Research Assignment**

**INTRODUCTION**

In the SPSS file “Time in Emergency Dept.Sav” you will find data for a sample of 500 patients who visited the AAA Hospital Emergency Department.

It includes the following variables

* Patient Code
* Day of admission
* Month of admission
* Admitted (0 = Patient not admitted to Main Hospital, 1 = Patient admitted)
* Time Spent in Emergency Department
* Triage (Severity of Condition – 1=Blue, 2=Green, 3=Yellow, 4=Orange, 5=Red)

This assessment is made by a nurse when a patient arrives in the Emergency Department, to assess how serious a patients condition is, where 1 (Blue) is minor and 5 is (Life threatening)

* Age of patient
* Gender

**(a) Generate the relevant univariate and bivariate descriptive statistics for this data.**

Briefly comment on you results. Marks will be awarded for variety of descriptive techniques used and use of appropriate statistics.

**(b) Use statistical tests to test the following hypotheses**

(i) Is there a significant difference in the amount of time spent time on average in the emergency department by males and females?

(ii) Is there a significant difference in the amount of time spent time on average in the emergency department by patients arriving on different days of the week?

(iii) Is there a difference in the proportion of males and females who are admitted to hospital?

Briefly explain and summarise the output and outline any assumptions made.

**(C) Develop a Regression Model**

With time spent in the emergency department as the dependent variable and using the variables age, admitted, triage and gender as the independent variables.

Briefly explain and summarise the model output, outline the limitations of the model and explain the assumptions made when developing the model.

**INSTRUCTIONS:**

**Due Date: Sunday March 29th 11.59pm**

**Please upload report in a single MS WORD document.**

**Presentation is important. Some technical SPSS Output may be included in an Appendix.**