

PART ONE

Questions 1 to 16 carry a total of 27 marks.

Question 1

Find the sample median and sample upper quartile for the following ordered set of data:

1.01 1.07 1.11 1.11 1.13 1.14 1.26 1.74

[2]

$$M = 1.12$$

$$UQ = 1.23$$

Question 2

The scatter plot in Figure 1 arose from data on the angle of knee reflex for subjects in each of a relaxed and a tense condition. Describe two aspects of the relationship between the variables 'angle when tense' and 'angle when relaxed' that are suggested by this graph.

[2]

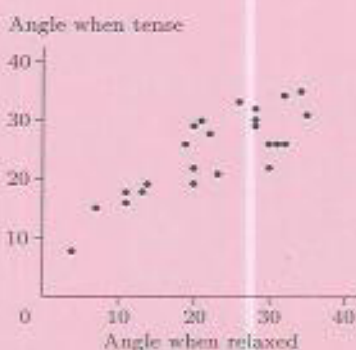


Figure 1

High +ve correlation
variance tends to increase
as angle increases

Question 3

Give two advantages that boxplots possess for the graphical summary of data, as compared with histograms.

[2]

Data displayed in a histogram is necessarily scattered, not for boxplots

Quartiles, median, outliers are clearly displayed in a boxplots