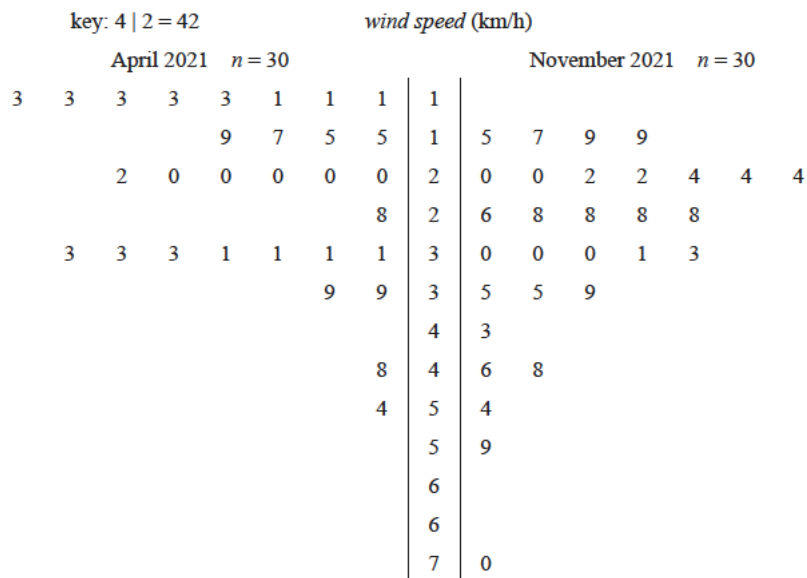


Teaching Topic – Investigating Associations Between Numerical and Categorical Variables - 2017 Exam 2

Question 1 (6 marks)

The back-to-back stem plot below displays the distribution of daily maximum *wind speed*, in kilometres per hour, recorded at a weather station in April and November 2021.



- a. For April 2021, determine
- i. the median *wind speed*, in kilometres per hour 1

 - ii. the percentage of days for which the *wind speed* was less than 25 km/h. 1

b. The five-number summary for *wind speed* in November 2021 is given below.

Minimum	First quartile (Q_1)	Median	Third quartile (Q_3)	Maximum
15	22	28	35	70

The *wind speeds* for November are to be used to construct a boxplot.

Show that the *wind speeds* of 59 km/h and 70 km/h would appear as outliers in this boxplot. 2 marks

c. On the grid below, use the data from the stem plot on page 2 to construct a histogram that displays the distribution of *wind speed* for November 2021. Use class intervals of widths of five, starting at 15 km/h. 2 marks

