SECI2143: PROBABILITY & STATISTICAL DATA ANALYSIS 2021/2022 - SEMESTER 2 QUIZ 1 Name : Section : 20 Date : 20

QUESTION 1 (5 MARKS)

The Higher Education Institute has selected one university with 20,000 senior students to conduct a survey. Two hundred students are interviewed to determine whether they still choose the enroll at current university even if they were given another choice. There are four possible responses: definitely yes (DY), probably yes (PY), probably no (PN) and definitely no (DN).

- i. Is the variable *response* categorical or numerical?
- ii. Do the data collection is univariate data or multivariate data? Justify your answer.

iii. Construct the bar chart to display the given data on literacy level.

QUESTION 2 (15 MARKS)

On a stretch of road with a 60 km/h limit the following speeds of cars were measured (in km/h). 45, 52, 60, 71, 49, 53, 60, 53, 54, 73, 54, 69, 56, 56, 57, 58, 72, 58, 59, 61, 61, 62, 64, 69, 71, 65

a) Represent the data in a stem-leaf plot.

- b) Find the following measures:
 - i. median speed
 - ii. upper quartile (Q_3)
 - iii. lower quartile (Q_1)

c) Draw the skeletal Box-Plot.