**SECTION IV**

1. Hypothesis testing is a statistical procedure to provide a conclusion about a parameter in a population using data measured in a sample is true or false by comparing two data sets i.e., against an ideal data model.
2. a.)

b.)P-value: The probability of obtaining a sample outcome, given that the value stated in null hypothesis is true when compared with level of significance. It varies between 0 to1 and can never be negative.

3. a) Mean = 47.7 ,Variance=18.57, SD= 4.31

b) 25% Quartile = 39

50% Quantile = 47

75% Quantile= 52

Median= 47

4. i) Mean of the population μ = 173.1

Variance =611.09

ii) The 95% confidence interval is between (157 – 189.2) cm