

Subject: Math 208 Full marks: 20 Pass marks: 10 Time: 1 hour

Solve the following case in accordance to the questions mentioned below: (20 marks)

1. The President of Ocean Airlines is trying to estimate when the Federal Aviation Administration (FAA) is most likely to rule on the company's application for a new flight between Charlotte and Nashville. Assistants to the president have assembled the following waiting times for applications field during the past year. The data are given in days from the date of application until an FAA ruling.

14	40	13	48	31	40	25	33	62	12
44	34	68	11	33	42	26	55	47	11
29	40	41	30	34	31	64	35	57	63
44	44	17	52	32	36	34	53	41	39
29	22	28	44	51	31	44	28	56	53

- Arrange above data in ascending order by preparing stem and leaf display.
- Construct a frequency distribution using suitable intervals of equally spaced.
- Also construct histogram and comment on the shape of the distribution.
- Using the ogive, locate the minimum hours used by top 20% users and locate the median too.
- Calculate the value of 1st quartile (Q_1), 3rd quartile (Q_3), 4th decile (D_4) and 60th percentile (P_{60}) from the above continuous data.
- Find the value of mean using continuous data.
