| Subject: Quantitative Techniques in Management | Time: $\mathbf{0 1 . 3 0}$ hour |
| :--- | :--- |
| Subject Code: PG-04 | Max Marks: $\mathbf{2 0}$ |

## Note:

1. Writing anything except Roll Number on question paper will be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. All questions are compulsory in Section A, B \& C. Section A carries 1 Case Study of 8 marks. Section B carries 3 questions of 2 marks each and Section C carries 2 questions of 3 marks each.

SECTION A
2 * 4 Marks $=8$ Marks

## Q. 1: Case Study:

The sample data from a research survey conducted in various cities on the amount of time 13-15 year-old children spent with mobiles are as follows:

| City | Time with mobiles <br> (Hours per week) |
| :---: | :---: |
| Hyderabad | 46 |
| Mumbai | 50 |
| Pune | 46 |
| Bangalore | 54 |
| Bhubaneswar | 42 |
| Indore | 30 |
| Bhopal | 42 |
| New Delhi | 50 |
| Chandigarh | 46 |

For the above sample, determine the following measures:
A. i. Mean ii. Standard Deviation
B. i. Mode ii. Quartiles. Based on the calculations comment on the time spent on mobile.

SECTION B
3 * 2 Marks= 6 Marks
Q. 2: A receptionist was maintaining the database of customers with following entries viz Name, Age, Gender, Credit Score, Annual Income, Address, Temperature of the body, Bill Amount, Room Number and Customer Rating of the Hotel. Classify the data on the scale of Nominal, Ordinal, Interval and Ratio.
Q.3: "Data are the key ingredient for Decision Making." Explain highlighting importance of role of data in Statistical Analysis.
Q.4: Which Player is more consistent?

|  | Player A | Player B |
| :--- | :--- | :--- |
| Batting Average | 82 | 89 |
| Variance of scores | 25 | 36 |

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## SECTION C

2* 3 Marks= 6 Marks
Q.5: Write short notes on the following:
a) Pie Charts
b) Pareto Charts
Q.6: The histogram for a frequency distribution is as shown below.


Answer the following.
(i) Find the class intervals having the greatest and the least frequencies.
(ii) Find the class interval whose frequency is 40 .
(iii) What is the frequency of the class interval $30-40$ ?
(iv) What is the cumulative frequency of the class interval $30-40$ ?
(v) Construct the frequency table of the distribution.

## Mapping of Questions with Course Learning Outcome

| COs | Question Number(s) | Total Marks Allocated <br> to the CO |
| :--- | :--- | :--- |
| CO 1 | $2,3,4$ | $\mathbf{6}$ |
| CO 2 | 1 | $\mathbf{8}$ |
| CO 3 | 5,6 | $\mathbf{6}$ |
| CO 4 | NA | $\mathbf{0}$ |

