Assignment I: Unit I

Note: Submission date 3rd January 2023.

Q.1 Calculate the arithmetic mean, the Median and the Mode for the following data regarding tips given by customers to a waiter in a day.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amount in Rs. | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| No. of persons | 50 | 150 | 175 | 100 | 25 |

Q.2 Calculate arithmetic mean, median and mode for the following data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Class interval | 100-149 | 150-199 | 200-249 | 250-299 | 300-349 |
| Frequency | 15 | 18 | 14 | 20 | 17 |

Q.3 Calculate arithmetic mean , median and mode for the following data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| No. of students | 6 | 12 | 17 | 8 | 7 |

Q.4 In an entrance examination, a student scored 50, 55, 60 and 45 marks in four tests. Another student scored 53, 50, 47 and 59 in the same test. If the weights are 2, 4, 3 and 1 respectively for these tests, decide who will be selected.

Q.5 Calculate all quartiles for the following distribution:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Monthly production in (thousand tones) | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 |
| No. of factories | 10 | 18 | 26 | 15 | 11 |

Q.7 Calculate the or the following distribution:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Daily profit (in Rs.) | 700-800 | 800-900 | 900-1000 | 1000-1100 | 1100-1200 | 1200-1300 | 1300-1400 |
| No. of shops | 4 | 6 | 10 | 16 | 12 | 7 | 3 |

Q.8 Calculate the missing frequency If the mode of following data is 700.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Daily wages in Rs. | 200-400 | 400-600 | 600-800 | 800-1000 | 1000-1200 | 1200-1400 |
| No. of workers | 8 | 15 | - | 15 | 13 | 7 |

Q.9 The following data represents average marks of 50 students is 27. Calculate the missing frequencies.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| No. of students | 4 | x | Y | 12 | 8 |

Q.10 Calculate or the following distribution:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Daily profit (in Rs.) | 700-800 | 800-900 | 900-1000 | 1000-1100 | 1100-1200 | 1200-1300 | 1300-1400 |
| No. of shops | 4 | 6 | 10 | 16 | 12 | 7 | 3 |