**Work sheet \_3\_ Measures of Central tendency & Measures of Location**

1. For each of the data sets, compute;
2. The arithmetic mean
3. The median
4. The mode
5. The 1st and 3rd quartiles
6. The 6th and 8th deciles
7. The 65th and 84th percentiles

* Table 1:Frequency distribution of ages of 130 Peoples

|  |  |  |
| --- | --- | --- |
| Class interval | Frequency(f) | Cumulative frequency(CF) |
| 15-24 | 20 | 20 |
| 25-34 | 30 | 50 |
| 35-44 | 40 | 90 |
| 45-54 | 25 | 115 |
| 55-64 | 15 | 130 |
| Total | 130 |  |

* Suppose, the following are the marks obtained by 100 students, who had a test on statistics on a particular day in DIU.

Table 2: Marks obtained by 100 students

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Marks group | | | | | | |
| Marks | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | total |
| #of students | 5 | 9 | 70 | 11 | 5 | 100 |

1. Suppose, in a exam20 students got marks in statistics on a particular day. The marks of the students were;

65,72,67,71,77,60,55,53,68,67,81,59,64,61,67,88,84,85,73,62.

Calculate AM.

1. The following values represent the results of students in a midterm examination.

14,8,9,8,13,14,8,8,12,11,10,7,10,12,12

1. Calculate average mark.
2. Calculate the median and the mode.
3. Calculate 10th percentile, 5th deciles, 2nd quartile.
4. A class of 25 students took a science test. 10 students had an average score of 80. The other students had an average score of 60. What is the average score of the whole class?
5. A student is enrolled in a Statistics course where the final grade is determined based on the following categories: tests 40%, final exam 25%, quizzes 25%, and homework 10%. The student has earned the following scores for each category: tests-83, final exam-75, quizzes-90, and homework-100. Calculate the student's Average number.