**Admas University**

**Olympia Campus Degree program**

**Department of Accounting and Finance**

**Basic Statistics group assignment.**

**Maximum number of students in group is 5.**

**Submission date is January 28/2023.**

**INSTRUCTION Give clear explanation and all necessary steps. The Assignment should have cover page, Table of Contents and References**

1. What is the benefit of statistics for the society? Go to Central Statistical Agency (CSA) and discuss their major duties and their main role.
2. List and discuss application of statistics in Finance and investment.
3. Four people will enter an automobile show Room and each will either purchase a car (P) or will not purchase a car (N)
   1. Draw a tree diagram depicting the sample space of all possible purchase decision that could potentially be made by the four people.
   2. List the sample space out comes that correspond to each of the following events.
      1. Exactly three people will purchase a car
      2. Two or fewer will purchase a car
      3. One or more people will purchase a car
      4. All four people will make the same purchase decision
   3. Assuming that all sample space outcomes are equally likely, find the probability of the events given in part (b)
4. Service life of truck tires for heavy-duty trucks follows the normal distribution with mean 50,000km and standard deviation 5000km. find probability of

i) Between 47,000km and 50,000km?

ii) Between 50,000 and 60,000km

iii) Between 45,000 and 57,500km?

vi) Less than 63000km?

vii) Between 53,000 and 62,000km?

1. Construct a continuous Frequency Distribution for the following raw data on marks (out of 100) obtained by 70 students in course of basic Statistics in 2022.

63, 29, 85, 73, 44, 87, 39, 76, 58, 44, 39, 81, 32, 37, 50, 49 ,48, 77, 60, 63, 44, 66, 82, 57, 53, 65, 55, 50, 45, 64, 52, 16, 46, 42, 63, 33, 64, 53, 25, 54, 35, 48, 55, 70, 47, 39, 58, 75, 26, 20, 55, 60, 83, 61, 45, 63, 49, 42, 35, 18, 51, 45, 42, 65, 39, 59, 45, 41, 30, 40.

1. The following grouped data were given Based on it compute the following.

|  |  |
| --- | --- |
| Marks | Frequency |
| 15 - 24 | 3 |
| 25 – 34 | 4 |
| 35 – 44 | 10 |
| 45 -54 | 15 |
| 55 – 64 | 12 |
| 65 – 74 | 4 |
| 75 – 84 | 2 |
| Total | 50 |

A) Find mean of the data

B) Find the median

C) Find the mode of the given data

D) Find its mean deviation around the mean and median

E) Find its variance and standard deviation.

1. Discuss 6 types of measure of central tendency & 6 type’s measure of dispersion and put the difference between measure of central tendency and measure of dispersion.