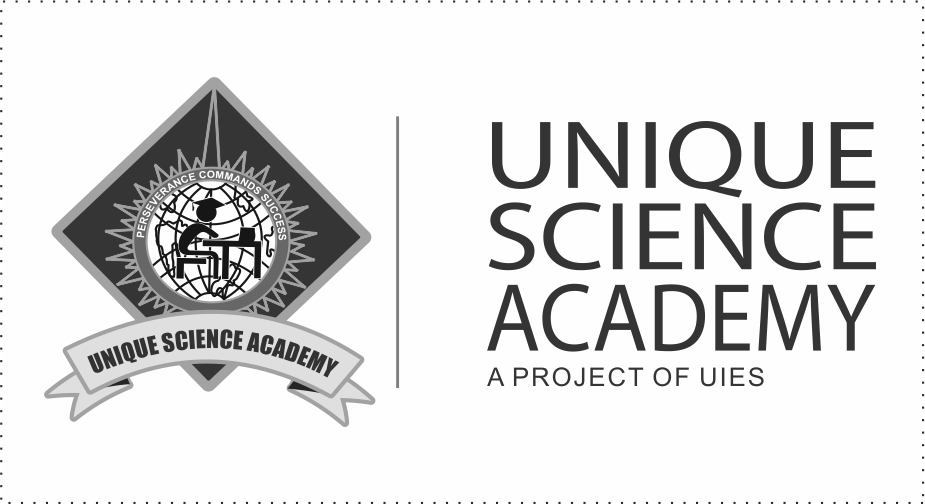
**Unique Science Academy, 60 – D Nawab Town, Lahore**

**Statistics 11 Monthly Test**

(Chapter 4 – Measure of Dispersion – Skewness and Kurtosis)

29 August 2024 Allowed Time: 40 minutes

Total Marks: 25

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Q.1 Select all that are true. (1 x 5 = 5)**

1. Which of the following is / are correct formula(s) for standard deviation?

(a)

(b)

(c)

(d)

2. Which of the following is / are formulas for the coefficient of skewness?

(a)

(b)

(c)

(d)

(e)

3. Which of the following is / are formulas for Kurtosis?

(a)

(b)

(c)

(d)

4. If 5 is added to every single value in a dataset then the original arithmetic mean of that data set will be:

(a) Decreased by 5

(b) Increased by 5

(c) Remain same

(d) Multiplied by 5

5. Sum of deviation from arithmetic mean is

(a) One

(b) Zero

(c) Negative

(d) Positive

**Q2. The grouped data is given as follows: (20)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classes** |  |  |  |  |  |  |  |
| 500 – 569 | 2 |  |  |  |  |  |  |
| 569 – 638 | 5 |  |  |  |  |  |  |
| 638 – 707 | 15 |  |  |  |  |  |  |
| 707 – 776 | 6 |  |  |  |  |  |  |
| 776 – 845 | 10 |  |  |  |  |  |  |
| 845 – 914 | 10 |  |  |  |  |  |  |
| 914 – 983 | 2 |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |  |

1. Fill the table (2)
2. What is the value of arbitrary constant and class interval ? (2)
3. Find moments about origin using the following formula (6)
4. Find first four moments about mean , , and . (5)
5. Find coefficient of skewness and Kurtosis . (5)