



NATIONAL OPEN UNIVERSITY OF NIGERIA
 Plot 91, Cadastral Zone, NnamdiAzikiwe Express Way, Jabi– Abuja
FACULTY OF MANAGEMENT SCIENCES
DEPARTMENT OF PUBLIC ADMINISTRATION
 2023_1 POP EXAMINATION.

COURSE CODE: PAD 813

COURSE TITLE: QUANTITATIVE METHODS FOR PUBLIC ADMINISTRATION

CREDIT UNITS: 3 TIME ALLOWED: 3 Hrs

INSTRUCTIONS:

- 1. Attempt question Number one (1) and any other three (3).**
- 2. Question number 1 is compulsory and carries 25 marks, while the other questions carry 15 marks each**
- 3. Present all your points in coherent and orderly manner**

Q1a. List the two the importance and often used statistical measures in quantitative techniques (2 Marks):

Q1b. Mention three (3) important measures of central tendency (3 Marks)

Q1c. Use the data below to Calculate the Weighted Average Mean Score of the given student examination (10 Marks)

Exam	Weight (wi)
Quiz	5
Midterm Semester	4
Exam	3

Q1d. Use the information below to calculate the arithmetic mean score of a given data (10 Marks)

X	F
1	3
2	2
3	5
4	6
5	4

Q2a. Giving the following data: 5,6,3,8,2,1,9,5,3,1,0,3. Determine the modest value (5 Marks)

Q2b Giving the following table on the share prices of a quoted company over a period of 60 days:

S/N	Price (N)	No. of Days (f)
1	110-114	2
2	115-119	6
3	120-124	8
4	125-129	12
5	130-134	14

Q3a. Define and State the formula for Variance (5 Marks).

Q3b. Calculate Variance and standard deviation (SD) from a given set of grouped data (10 Marks):

S/N	X
1	2
2	5
3	8
4	10
5	11
6	15
7	17
Total	68

Q4a. Consider a set of data on monthly sales of a company's product, the mean of which was found to be N901, 000; the modal found to be N282, 000; and the standard deviation found to be N102, 000.

Calculate the Pearson's No. 2 Coefficient of skewness? (10 Marks)

Q4b. With relevance example differentiate between Theory of Sets and Universal Set (5 Marks)

Q5a Solve the linear equation $\frac{7X + 3}{2} - \frac{9X + 8}{4} = \frac{6}{4}$ (10 Marks)

Q5b. Solve x in the quadratic equation using Factorization methods: $X^2 - 12 = 0$ (5 Marks).