



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, NnamdiAzikiwe Express Way, Jabi– Abuja
FACULTY OF MANAGEMENT SCIENCES
DEPARTMENT OF PUBLIC ADMINISTRATION
2021_2 EXAMINATION

COURSE CODE: PAD 813
COURSE TITLE: QUANTITATIVE METHODS FOR PUBLIC ADMINISTRATION
CREDIT UNITS: 3 **TIME ALLOWED: 2^{1/2} Hrs**

INSTRUCTION:

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

(1a) What is Quantitative Technique? 6 marks

(b) Quantities techniques are essentially valuable in four areas of management decisions. State the four areas. 4 marks.

(c) The frequency of the daily distribution of sweet cola soft drink in Lagos, Nigeria is given below:

Days	Quantity
Monday	4, 000 000
Tuesday	3, 000 000
Wednesday	4, 000 000
Thursday	4, 000 000
Friday	5, 000 000
Saturday	8, 000 000
Sunday	7, 000 000

(i) Determine the mean distribution. **10 marks**

(ii) What is the modal distribution? **2½**

(iii) What is the median distribution? **2½**

(2)a Define Arithmetic Mean. **5 marks**

(b) Using the formula of Arithmetic mean compute the mean of the following distribution: 5, 2, 4, 3, 5, 7, 8, 6, 9, 10, 12, 11, 15, 3. **10 marks**

(3)a) What is mode? **5 marks**

(b) Define Range. **5 marks**

(c) Determine the range of the following distribution: 200, 100, 400, 100, 800, 700, 200, 2000, 700, 1000. **5 marks**

(4) Given a set data on monthly sales Sweet Cola, the mean is ₦180, 000, the mode is ₦95, 000 and the standard deviation is ₦25, 000. Determine the Pearson's No. 1 coefficient of Skewness. **15 marks.**

(5)a) Briefly explain the concept of forecasting. **3 marks**

(b) Outline the basic steps in forecasting. **12 marks**