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

2020_1 EXAMINATION

COURSE CODE: PAD813
COURSE TITLE: QUANTITATIVES METHODS FOR PUBLIC ADMINISTRATION
CREDIT UNITS: 3
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**
TIME ALLOWED: $2^{1/2}$Hrs

1 (a) What is quantitative technique? **5 marks**

(b) AZ company is in the production of exercise books ranging from 20 to 80 leaves but recently decided to produce 100 leaves exercise books. Market survey indicates that the new exercise book could be priced between ₦100-200. The possible prices are ₦ 100, ₦120, ₦150, ₦200. The market survey predicts that the quantities sold at the prices of ₦100, ₦120, ₦150 and ₦200 would be ₦2000, ₦1,500, ₦1000 and ₦500. From the table below, where P = price and Q = Quantity, determine the Revenue (R) in each of the colume 1, 2, 3, and 4. **16marks**

	1	2	3	4
P	₦100	₦120	₦150	₦200
Q	2,000	1,500	100	500
R				

(C) At what revenue is the lowest quantity sold? **4 marks**

2 (a) State the four ways in which quantitative technique are essential valuable to management decisions. **10marks**

(b) What are the two tools that basically constitutes quantitative analysis? **5 marks**

3. XY company produced plates at a variable cost of ₦100 and fixed costs of ₦500,000. Each plate sells for ₦200 and ₦1000 plates were sold in one week.

   (a) What quantity of plates will be sold in one month? **5marks**
   (b) Determine the profit of the company. **10marks**

4.(a) What is mode? **5marks**

   (b) Determine the modal price of the following distribution of prices of items in a grocery store. **10marks**

        105, 104, 101, 103, 102, 124

        131, 104   129   125 127 126

        121 122   123   101 104 102

        104 105   106   107 109 104

        101 102   105   104 107 120

5(**a**) Briefly explain measures of variability or dispersion. **5marks**

   (b) As indicated in the course module outlines the five major measures of variations?

                                                                                    10marks

(6) (a) What is set enumeration? **5 marks**

   (b) State the four general procedure for solving enumeration problems. **10marks**