



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
OCTOBER 2013 EXAMINATION

Course Code: ENT321

Credit Unit: 2

Course Title: Quantitative Methods for Business Decision

Time Allowed: 2 hours 30 minutes

Instruction: Attempt question one and any two questions of your choice. Question

one carries 30 marks while others carry 20 marks each. Present your answer in coherent and orderly manner.

QUESTIONS

1. a. What is the general approach to the development of mathematical models of economic decisions?
b. Solve the following problem: $2(x+6) = 6x+3$
c. What is the definition of linear equation?
d. Mention four areas of management decisions in which quantitative techniques are essential.
2. NOUN Water Project Ltd produces bags of pure water for which cost (including labour and material) is N6/unit. Fixed cost is N80, 000. Each unit is sold for N10. Determine the number of units which must be sold for the company to earn a profit of N60, 000.
3. a. Define the following measures of variation listed below:
 - i. range
 - ii. standard deviation
 - iii. coefficient of variation

b. Solve for the unknown in the linear equation : $25x - 10 = 10x$

4. The following are data on the daily wages paid to workers in Workwell Group of Company:

Daily wages (in Naira)	Number of workers (f)
200 - 300	15
301 - 401	30
402 - 502	45
503 - 603	60
Total	150

Compute the daily wages.

5. Solve for X and Y in the system equation.

$$3x - 4y = 13$$

$$3y + 2x = 3$$