NATIONAL OPEN UNIVERSITY OF NIGERIA
91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESS WAY, JABI – ABUJA
FACULTY OF MANAGEMENT SCIENCES
JULY 2017 EXAMINATION QUESTIONS

COURSE CODE: MGS 728 **CREDIT UNITS: 2**
COURSE TITLE: Quantitative Techniques for Financial Decisions
TIME ALLOWED: 2 Hrs
INSTRUCTIONS: 1. Attempt question number one (1) and any other (2) questions.
2. Question number 1 carries 30 marks, while the other two (2) questions carry 20 marks each.
3. Present all your points in coherent and orderly manner.

1a. Explain what simultaneous equation systems are all about. (**5marks)**

b. Assume three levels of examinations, Quiz, Mid-semester, and Final examination. The weights assigned to each of these examinations and scores for a particular participant is as summarized below: 12marks

Exam	Weight (w)	Score (s)
Quiz	1	65
Mid-semester	3	50
Final Exam	6	45

What is the average score of the participant for the three examinations?

c. Solve for the unknowns in the following linear equations:

(i) $\frac{7X + 3}{2} - \frac{9X - 8}{4} = 6$ **(7marks)**

(ii). $2(p + 4) = 7p+2$ **(6marks)**

2a. Consider the following raw data on hourly wage rate for six executive secretaries:

Raw data (in =N=): $X_1 = 950$, $X_2 = 300$, $X_3 = 1000$, $X_4 = 950$, $X_5 = 850$, $X_6 = 750$

Compute the median hourly wage rate for the six secretaries. **(10marks)**

b. What do you understand by the following statistical tools?

i. The Measures of Skewness (**2marks)**

ii. The Range (**2marks)**

iii. The Median (**2marks)**

iv. The Mode (**2marks)**

v. The arithmetic mean (**2marks)**

3. The following data presents the profit ranges of 100 firms in a given industry.

Profits (N'millions)	No. of Firms (f)
10 – 15	8
16 – 21	18
22 – 27	20
28 – 33	12
34 – 39	15
40 – 45	17
46 – 51	10
	$\Sigma f = n = 100$

You are required to compute the variance and standard deviation of profits within the industry. (**20marks)**

4a. List and discuss four basic laws of probability (**8marks)**

b. Discuss the different types of forecasting (**8marks)**

c. List the two generally used forecasting techniques (**4marks)**

5. Discuss the following inventory control systems terms;

i. Re-order Level (**4marks)**

ii. Minimum level (**4marks)**

iii. Maximum level (**4marks)**

iv. Ordering (Replacement) Costs (**4marks)**

v. Stock out Costs (**4marks)**