



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi-Abuja**  
**Faculty of Management Sciences, Department of Financial Studies**  
**October/November Examination 2016**

**COURSE CODE: MGS 728**

**CREDIT UNITS: 2**

**COURSE TITLE: Quantitative Techniques for Financial Decisions**

**TIME ALLOWED: 2 Hours**

**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. Discuss the tools of quantitative analysis 5marks**

**b.** A total of N10, 000 was invested in two business ventures, A and B. At the end of the first year, A and B yielded returns on the original investments of 6 percent and 5.75 percent respectively. How was the original amount allocated if the total amount earned was N588.75?

**12marks**

**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
	<u><math>\Sigma f = n = 100</math></u>

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 four 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**