NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16, AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF MANAGEMENT SCIENCES
JUNE/JULY, 2013 EXAMINATIONS

Course Code:	**MBF839**	**Credit Unit: 2.**
Course Title:	**Quantitative Techniques for Banking and Finance**	
Time Allowed:	**2 Hours.**	
Instructions:1.	**Attempt Question 1 and any other two (2) Questions.**	
	2. Question 1 is compulsory and carries 30 marks while the other 2 Questions carry 20 marks each.	
	3. Show all your calculations for appropriate marks.	

1a. Define variation and discuss two kinds of variation that are most common.

1b. Discuss five advantages of quantitative skills for managers.

1c. A firm is faced with two alternative investment plans. Plan 1 will cost #750 and plan 2 #950. Both plans involve the purchase of equipment the life of which is four years, and the current rate of return on capital is expected on capital is expected to be 20%. The estimated cash flows resulting from the projects are:

Years	1	2	3	4
Plan 1	#300	#400	#300	#200
Plan 2	#500	#400	#300	#300

The present value of these expected returns assuming a rate of return on capital of 20%.

2a. Define Arithmetic and Geometric progression.

2b. Suppose #1,000 is invested at 7% per annum compound interest. Find value of the investment at the end of the tenth year.

3a. Define Capital budgeting

3b. An equipment costing #1,000 has an expected life of 5years. It is estimated that the cash flow resulting from the use of the machine will be #400 a year. The rate of return expected from capital of the type is 15%. Is the investment worthwhile?

4a. Explain the following

i. Bond with maturity

ii. Pure Discount Bonds

iii. Perpetual Bonds

4b. Describe the objective functions and the constraints of L.P

4c. A farmer mixes three products to feed his pigs. Feedstuff M costs 20p per kilo, feedstuff Y costs 40p per kilo and feedstuff Z costs 55p per kilo. Each feedstuff contributes some essential part of the pigs diet and the farmer wishes to feed.

5a. Differentiate the four costs associated with inventory.

5b. What are the advantages and disadvantages of the periodic review system of inventory control.

5c. The following data relate to a particular stock item

Normal Usage	110 per day
Minimum Usage	50 per day
Maximum Usage	140 per day
Lead time	25-20 days
EOQ	5000

Using this data, calculate the various control levels.