

LAGOS CITY POLYTECHNIC, IKEJA

SCHOOL OF ENGINEERING AND APPLIED SCIENCE =
DEPARTMENT OF ELECT/ELECT AND COMPUTER ENGINEERING

2015/2016 SEMESTER EXAMINATION

(a) Solve the exponential equation $5^{2x+1} = 25$
 (b) Evaluate $\frac{2}{3} \log 64 + 4 \log 3$ without using a calculator

COURSE TITLE: Rationalise BUSINESS MATHEMATICS **2 NO OF QUESTION : 6**
COURSE CODE: BAM 112/ **TIME ALLOWED: 2HRS**
FOR WHOM: AC, 2 BS 3 H/T 2 **INSTRUCTIONS:**
ANSWER ANY FOUR

(d) For what value(s) of P will the equation $4x^2 - 20x + P = 0$ have equal roots

1. (a) Solve the range of value of exponential equation $5^{x+1} = 25$
 (e) Find the range of value of $x: 5^{x/2} \leq 4^{3x+2}$

2. (a) Define without using the tables following calculator terms
 (i) Unit matrix (ii) Singular matrix
 (iii) Diagonal matrix (iv) Skew-symmetric matrix

(b) Rationalise the value of K if $\frac{2}{3} + \frac{1}{K} = \frac{1}{3} + \frac{2}{5}$

(d) For what value(s) of P will the equation $4x^2 - 20x + P = 0$ have equal roots

(e) Find the range of value of $x: 5^{x/2} \leq 4^{3x+2}$

2. (a) YABATECH VENTURES manufactures three products namely pure water Bread and Diagonal matrix

(i) Unit matrix (ii) Singular matrix
 (iii) Diagonal matrix (iv) Skew-symmetric matrix

Each of which must go through three processes t_1, t_2 and t_3 for the following

(b) (i) Find the value of K terms if

	2	1	1	2	3	+	2	5
Time	2	1	K	=	PRODUCT			23
t_1	1	3	1		spend		A B C	
t_2			1	3	1			
			2	3	3			

(c) YABATECH VENTURES manufactures three products namely pure water

(a) Bread and Diagonal matrix
 The maximum capacities of processes A, B and C are 60 130 and 85 hrs respectively.

(i) Translate the information into linear equation (ii) Translate the equation into terms

(iii) Calculate the number of units to be produced of product, A, B and to ensure the utilization of maximum capacity.

PRODUCT

3. (a) Distinguish between the spend following Ang B terms:

- (i) Simple interest 3 and 1 compound interest
- (ii) Present value of annuity and future value (iii) Annuity due and annuity

(b) A man deposited N43,000 at 5% interest in BABA IJEBU Bank of Nigeria. How much The maximum capacities of processes A, B and C are 60 130 and 85 hrs respectively.

(i) Translate the information into linear equation (ii) Translate the equation into matrix does he have after 6 years if the interest is compounded four months?

