UNIVERSITY OF BAMENDA

COMMON ENTRANCE EXAMINATION JULY 2011 SESSION CYCLE: SECOND CYCLE CAMPUS: BAMBILI SERIES: ACCOUNITNG/MANAGEMENT /MARKETING GENERAL EDUCATION TECHNICAL EDUCATION PAPER BUSINESS MATHEMATICS DURATION: 3HOURS COEFFICIENT: 3 QUESTION 1

Donaldson decided on 01/01/1991 to make yearly deposit of 1 500 000F to a bank saving account at compound interest rate of 10.25% per annum .01/01/1991 to 01012000 and to withdraw a half yearly constant from 01/07/2001 to 01/012007.

Required

- 1.1. Calculate the balance on 01/01/2001
- 1.2. Calculate the half yearly withdrawal with balance on 01/01/2008 amounted to 2000 000F

QUESTION 2

The following information was provided as for a loan of 30 000 000F received from the bank redeemable by six (6) non constant yearly payment with the first due three months after the date of the loan:

- ✤ First payment : 5 000 000F
- ✤ Second payment; 5 000 000F
- ✤ Third payment: 5 000 000F
- ✤ Fourth payment: 5000 000F
- ✤ Fifth payment; 5 000 000F
- Sixth payment a_6F

Required

2.1. Calculate the value of a_6 F at the compound interest rate of 9%

- 2.2. Calculate the capital due after the third payment
- 2.3. Prepare the two last lines of the amortization schedule of the loan

QUESTION 3

The following information was provided as for a loan received on 01/01/2006 from the bank and redeemable by end -of - year constant payments:

Third yearly payment was 10717944.05F of which interest expenses of 4 667 944.05 F

Capital due on 01/01/2009 after the third payment was 40 629 440.5F

Require:

- 3.1. Calculate the compounded interest rate per annum
- 3.2. Calculate the duration of the loan.
- 3.3. Calculate the amount of the loan.

QUESTION 4

A public limited company floats on 2000 debentures on 01/01/2010 with normal value 100 000F at the compounded interest rate of 9% and redeemable at 120 000F by constant end – of – year payment with last amortization amounted to 21652.08535771F

Required:

4.1. Calculate the value of each yearly constant payment

- 4.2. Calculate the value of the first amortization
- 4.3. Calculate the duration of the loan
- 4.4. Calculate the capital due after eight end of –year payments.

4.5. Prepare the first two lines of the amortization schedule of the loan.

QUESTION 5

The following information was provided as for sales in units of finished product P manufacture by a limited company for two consecutive years:

Years	Months											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2008	420	650	510	600	630	570	480	720	660	570	810	690
2009	450	630	600	750	840	570	540	810	720	630	900	810

Require:

5.1. Prepare the chronological chart for the year 2008 and 2009

5.2. Estimate the Trend of Tendency through the moving average method with three months

5.3. Calculate the month seasonal coefficients by taking into consideration the trend.

