COMMON ENTRACNE EXAMINATION, JULY 2011 SESSION

SERIES: ADMINISTRATIVE TECHNIQUES

CYCLE: SECOND CYCLE TECHNICAL EDUCATION

OPTION: ACCOUNTANCY/MANAGEMENT/MARKETING/ECONOMICS

PAPER 2:   BUSINESS MANAGEMENT   DURATION: 3HRS

COEFFICIENT: 3

CANDIDATES ARE ALLOWED TO USE FINANCIAL TABLES AND NON

PROGRAMMABLE CALCULATORS

ANSWER ALL QUESTIONS.

Question 1:

DONALSON decided on 01/01/1991 to make yearly deposits of 150,000fcfa to a bank saving account at compound interest rate of 10.25 percent per annum. From 01/01/1991 to 01/01/2000 and to withdraw a halve yearly constant amount from 01/07/2001 to 01/01/2007.

Required

    1.1 Calculate the balance on 01/01/2001

    1.2 Calculate the halve yearly withdrawal with balance on 01/012008 amounting to 2000000fcfa

Question 2

The following information was provided as for a loan of 30,000,000 received from the bank, redeemable by 6 non constant yearly payments, with the first due 3 months after the date of the loan.

- First payment: 5,000,000fcfa
- Second payment: 5,000,000fcfa
- Third payment: 5,000,000fcfa
- Fourth payment: 5,000,000fcfa
- Fifth payment: 5,000,000fcfa

- Sixth payment: a6fcfa

Required:

2.1 Calculate the value of a6fcfa at the compound interest rate of 9 percent

2.2 Calculate the capital due after the third payment.

2.3 Prepare the 2 last lines of the amortization schedule of the loan.

Question 3:

Michael loan from the bank 21300000fcfa ON 01/01/2003 redeemable by 9 end of year non constant payments, remunerated at compound interest rate of 12 percent per annum, each yearly payment includes the interest payment calculated on the capital due and the amortization in increasing arithmetic progression with common difference 300,000fcfa.

Required

3.1) Calculate the value of the first amortization

3.2) Calculate the value of the first annuity

3.3) Calculate the value of the 3rd annuity

After the payment of the 4th yearly installment, the bank and Mr. Michael agreed about the payment of the capital due by 7 yearly constant payment, with the 1st one due on 01/01/2009 and remunerated at compound interest rate of 10 percent per annum.

Question 4

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.

- 3rd yearly payment was 10717944.05fcfa of which interest expenses of 4667944.05fcfa.
- Capital due on 01/01/2009 after the 3rd payment was 40629440.5fcfa

Required

4.1 Calculate the compound interest rate per annum

4.2 Calculate the duration of the loan

4.3 Calculate the amount of the loan.

Question 5:

A public limited company floats on 2000 debentures on 01/01/2010 with nominal value 100000fcfa at a compound interest rate of 9 percent and redeemable at 1200000fcfa by constant end of year payment, with last amortization amounting to 21899652.08535771fcfa

Required:

5.1. Calculate the value of each yearly constant payment.

5.2 Calculate the value of the first amortization.

5.3 Calculate the duration of the loan.

5.4 Calculate the capital due after 8 end of year payments.

5.5 Prepare the first 2 lines of the amortization schedule of the loan.

Question 6:

The following information was provided as for sales in unites of finished products P manufactured by a private limited company for two consecutive years.

Years	Months											
	January	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
2008	420	450	510	600	630	570	480	720	60	570	810	690
2009	450	630	600	750	810	570	540	810	720	630	900	810

Required

    6.1 Prepare the chronological chat for the year 2008 and 2009

    6.2 Estimate the trend or tendency through the moving average method with 3 months.

    6.3 Calculate the monthly seasonal coefficient by taking into consideration the trend.