NATIONAL UNIVERISTY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE

PART IV SECOND SEMESTER EXAMINATIONS – MAY 2014

CONSTRUCTION FINANCE – AQS4203

TIME 3 HOURS **TOTAL MARKS: 100**

INSTRUCTIONS TO CANDIDATES

Answer any Four questions.

INFORMATION FOR CANDIDATES

The business cases in this question paper are intended to be fictitious.

QUESTION 1

Big Boots Construction Company (Big Boots) has decided to acquire a front end loader valued at $165 000 to be used in the construction of roads. The company has two financing options;

i) Lease financing
ii) Debt financing

If lease financed, the manufacturer (CAT) will provide a net lease over 3 years, with a before tax return to the lessor of 15% with lease payments made at the beginning of the year (term). The salvage value of the equipment at the end of the 3 years is expected to be USD38, 000. If financed with a term loan, Big Boots will be able to get a 13% term loan, with a payment schedule of the same nature as lease payments. The equipment has an economic life of 5 years with a scrap value of $6,500. Depreciation on the asset is on a straight line basis. Maintenance costs are $1000 per year payable at the end of each year and corporate tax is 35%.

You are required to;

a) Calculate the present value of the lease option; [12 marks]

b) Calculate the present value of the term loan option. [12 marks]

c) Advice Big Boots on the option that is best. [1 mark]

QUESTION 2

a) Assume that you have deposited $25,000 with your bank for a period of four years at 8% per annum compounded continuously, how much will you have after four years. [2 marks]

b) Goodhope is offering a financial instrument to Gianthead that promises to pay $2,500 per year for 25 years, beginning one year from now. Gianthead requires an annual return of 8%, how much will Gianthead be prepared to pay for the financial instrument. [5 marks]

c) Assume that an insurance broker offers you an endowment policy that promises to pay $10,000 annually forever for $120,000 and that alternative investments of a similar kind are yielding 10% per annum. Would you accept his offer? Explain? [3 marks]

d) Distinguish ordinary shares from preference shares [3 marks]

e) Explain the principal duties of the finance manager of a construction firm. [12 marks]

QUESTION 3

a) Differentiate a long forward position and a short forward position. [2 marks]

b) Explain the difference between entering into a forward contact when the price is $50 and taking a long position in a call option with a strike price of $50. [4 marks]

c) A trader enters into a short forward contract on 100 million yuan. The forward exchange rate is $0.0080 per yuan. How much does the trader gain or lose if the exchange rate at the end of the contract is (a) $0.0074 per yuan and (b) $0.0091 per yuan [2 marks]

d) A trader buys a European put on a share for $3. The stock price is $40 and the strike price is $40.

I. Under what circumstances does the trader make a profit? [2 marks]

II. Under what circumstances will the option be exercised? [2 marks]

III. Draw a diagram showing the traders pay off. [4 marks]

e) Explain the causes of conflict between shareholders and creditors.

[9 marks]

QUESTION 4

a) At the end of the fiscal year 2013, Bonzo Constrution Company has the following financial profile;

Total Assets	$1,000,000
Total Liabilities	$700,000
Gross Profit	$250,000
Total Operating Expenses	$210,000
Sales	$550,000
Creditors	$200,000
Debtors	$100,000

i. What is the total net worth of the company; [2 marks]

ii. What is the net profit after tax? (Assume a 25% tax rate) [3 marks]

iii. What is the creditors deferral period [2 marks]

iv. What is the debtors collection period [2 marks]

b) Discuss how agency costs are incurred in a firm. [16 marks]

QUESTION 5

a) Your company has $100,000 to invest and has identified the following three investments. Investment A requires an initial investment of $70,000 and has an annual rate of return of 15%. Investment B requires an initial investment of

$80,000 and has an annual rate of return of 21%. Investment C requires an initial investment of $30,000 and has an annual rate of return of 29%. Unused funds will be placed in a bank account with an annual percentage rate of 5%. You may invest in each of the investments only once. All of the investments have a life of one year. Which investment should your company invest in?

[10 marks]

b) Evaluate why construction financial management is different from the financial management of other industrial sectors? [15 marks]

QUESTION 6

a) ABC is contemplating two proposals A & B. The investments and cash inflows are tabled below;

Year	**Proposal A**	**Proposal B**
0	**Investment** **$100,000**	**Investment:** **$120,000**
1	85,000	90,000
2	65,000	90,000

ABC 's capital comprise $300,000,000, 5-year 10% coupon bonds, 10,000,000 ordinary shares at $10 each and retained earnings of $100,000,000. The interest rate prevailing on treasury bills is 7%, the beta of ABC stock is 1.4, the market return is 10% and corporate tax is 30%.

You are required to advise ABC on the favourable investment to embark on.

[8 marks]

b) Explain the weaknesses of ratio analysis [9 marks]

c) Memory intends to start a dam construction business, and wishes to borrow money for this purpose. She feels that she will not be able to repay anything for the first four years but thereafter, she is prepared to pay back $125,000 per quarter for four years. The bank agrees to advance her money at 20% per annum. How much would she receive from the bank under these conditions? [8 marks]

END OF EXAMINATION