

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT
DEPARTMENT OF QUANTITY SURVEYING
PART IV SECOND SEMESTER EXAMINATIONS –MAY 2013
CONSTRUCTION FINANCE – AQS4203

Time: 3 hours

Total Marks: 100

INSTRUCTIONS TO CANDIDATES:

Answer ANY four (4) questions. All questions carry equal marks.

Each question carries 25 marks

Start the answer to each full question on a fresh page.

Questions may be written in any order, but must be legibly numbered.

The businesses in this question paper are intended to be fictitious.

QUESTION 1

- a) Your broker offers to sell a note for USD13,250.00 that will pay USD2,345.05 per year for 10 years. If you buy the note, what rate of interest will you be earning? Calculate to the closest percentage. **[2 marks]**
- b) Your parents are planning to retire in 18 years. They currently have USD250,000 and they would like to have USD1,000,000 when they retire. What annual rate of interest would they have to earn on their USD250,000 in order to reach their goal, assuming they save no more money? **[3 marks]**
- c) If you deposit money today into an account that pays 6.5% interest, how long will it take for you to double your money? **[3 marks]**
- d) A property development company invests \$4 million to clear a tract of land and to set out some residential stands. The stands will be ready in 10 years, at which time the company plans to sell the stands at an estimated price of \$8 million. What is the company's expected rate of return. **[3 marks]**
- e) Jojo construction wants a tipper truck that cost \$12,000. The company arranges to borrow the total price of the truck from a finance company at a simple interest rate equal to 12 percent. The loan requires quarterly payments for a period of three years. If the first instalment is due three months after purchasing the truck, what will be the amount of the company's quarterly payments on the loan? **[5 marks]**

- f) Peter has \$42,180.53 in brokerage account and plans to contribute an additional \$5,000 every year at an annual interest rate of 12 percent . If Peter has to accumulate \$250,000 , how many years will it take for him to reach his goal. **[4 marks]**
- g) What's the rate of return you would earn if you paid \$1,500 for a perpetuity that pays \$105 per year? **[2 marks]**
- h) An amount of \$2,500 is invested on 15 May for five months in a special savings account at an interest rate of 16% per annum, compounded monthly on the first day of each month, while simple interest is applicable for the odd period calculations. How much interest is received at the end of the term? **[3 marks]**

QUESTION 2

- a) ABC Construction has an opportunity to invest in two mutually exclusive projects, that is, an Amusement Park project or a Hotel Construction project the cost of undertaking either of the two is \$10,000,000. The estimated cash inflows of the two projects are as follows;;

Year	Cash inflows for Town House Project (USD)	Cash inflows for the Hotel Project (USD)
1	2,500,000	2,050,000
2	3,150,000	2,050,000
3	4,550,000	2,050,000
4	3,100,000	3,000,000
5	1,900,000	3,000,000

The interest rate prevailing on long-term bonds is 14% per annum discounted semi-annually The project has a zero residual value. Ignore taxation.

You are required, stating the reasons for your decision, to advise ABC Construction, which project to undertake based on;

- a) The Net Present Value method **[5 marks]**
- b) Internal rate of return method **[5 marks]**
- b) State and explain the three major risk s that affects company's projects. **[10 marks]**

- c) Distinguish capital markets from money markets highlighting the types of financial instruments traded in these markets. **[5 marks]**

QUESTION 3

- a) With the aid of relevant and practical examples clearly explain why the shareholder value maximization goal is superior to the profit maximization goal. **[10 marks]**
- b) Briefly discuss the role played by Special Institutions such as Infrastructural Development Bank of Zimbabwe Limited in the economy. **[15 Marks]**

QUESTION 4

Explain and illustrate how Zimbabwe can promote infrastructural development through Public-Private Partnerships (PPP)s **[25 marks]**

QUESTION 5

- a) With the aid of examples illustrate the difference between trade credit and a bank overdraft. **[5 marks]**
- b) "Net Present Value and Internal Rate of Return are superior methods in capital budgeting" Do you agree with this statement? Explain why?. **[10 marks]**
- c) Explain how a new firm's receivables balance is built up over time. **[10 marks]**

QUESTION 6

You are presented with the following financial statements for XYZ Limited

INCOME STATEMENT FOR THE PERIOD ENDED 31 DECEMBER 2011

	USD
SALES	257,460.00
COST OF SALES	120,746.00
GROSS PROFIT	136,714.00
OPERATING EXPENSES	<u>67,866.00</u>
PROFIT BEFORE TAX	68,848.00
Taxation	<u>20,861.00</u>
PROFIT AFTER TAX	47,987.00
Retained profit at end of period	<u><u>47,987.00</u></u>

BALANCE SHEET AS AT 31 DECEMBER 2011

	USD
FUNDS EMPLOYED	
Share Capital	20,000.00
Retained earnings	47,987.00
Revaluation Reserves	<u>184,569.00</u>
	<u>252,556.00</u>
 EMPLOYMENT OF CAPITAL	
Fixed assets	
Buildings	141,375.00
Plant & Equipment	51,300.00
Motor vehicles	14,625.00
Office Furniture, fittings and equipment	<u>13,950.00</u>
	<u>221,250.00</u>
 Current assets	
Stock	15,137.00
Debtors	15,909.00
Bank and Cash	<u>2,760.00</u>
	33,806.00
 Current liabilities	
Creditors	<u>2,500.00</u>
 Net Current Assets	
	31,306.00
	<u>252,556.00</u>

You are **Require to:**

- a) Calculate the company's cash conversion cycle. **[15 marks]**
- b) Explain some of the actions that XYZ Limited can take to shorten its cash conversion cycle . **[10 marks]**