NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF QUANTITY SURVEYING

CONSTRUCTION FINANCE

AQS4203

Supplementary Examination Paper

July 2015

This examination paper consists of 5 pages

Time Allowed: 3 hours

Total Marks: 100

Examiner's Name: Mr T L Mutambanadzo

INSTRUCTIONS

1. Answer any four (4) questions
2. Each question carries 25 marks

.

MARK ALLOCATION

QUESTION	MARKS
1.	**25**
2.	**25**
3.	**25**
4.	**25**
5.	**25**
6	**25**

QUESTION 1

a) You are given the following information:

	Fixed market	Floating market
Company A	9%	Libor + 0.5%
Company B	10.5%	Libor + 1%

Company A prefers to borrow at a variable rate and a swap dealer to facilitate the transaction is charging a commission of 0.125%. Calculate the gross and net savings assuming that;

i) Commission is shared equally [8 marks]

ii) The full commission is paid by party with a lower credit rating bears [8 marks]

c) Evaluate the money and capital markets highlighting any two financial instruments traded in the respective markets. [9 marks]

[25 MARKS]

QUESTION 2

AQS Limited has decided to acquire a tipper truck valued at $200,000 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 USD42, 000. If financed with a term loan, AQS Limited will be able to get a 20% 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 $10,000. Depreciation on the asset is on a straight line basis. Maintenance costs are $2,500 per year, payable at the end of each year and corporate tax is 20%.

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 AQS Limited on the least expensive financing option [1 marks]

[25 MARKS]

QUESTION 3

a) Highway Construction company is contemplating two proposals X & Y. The investments and cash inflows are tabled below;

Year	Proposal X	Proposal Y
0	**Investment $110,000**	**Investment: $150,000**
1	90,000	100,000
2	80,000	100,000

Highway Construction company's capital comprise $450,000,000, 10-year 20% coupon bonds, 15,000,000 ordinary shares at $12 each and retained earnings $125,000,000. The interest rate prevailing on treasury bills is 9%, the beta of Highway stock is 1.7, the market return is 12% and corporate tax is 40%.

You are required to advise Highway Construction on the favourable investment to embark on. [13 marks]

b) Evaluate four unique features of construction activities that make its financial management different from the financial management of other companies? [12 marks]

TOTAL [25 MARKS]

QUESTION 4

a) State and explain four types of leasing options. [12 marks]

b) Examine the rational for leasing. [13 marks]

QUESTION 5

a) Evaluate five major project classification categories, and highlight how they are used. [15 marks]

b) You have been hired as a capital budgeting analyst by a firm that manufactures asbestos and has captured 10% of the overall asbestos market (the total market is worth $100 million a year). The fixed costs associated with manufacturing these asbestos is $2 million a year, and variable costs are 40% of revenues. The company's tax rate is 40%. The firm believes that it can increase its market share to 20% by investing $10 million in a new distribution system (which can be depreciated over the system's life of 10 years to a salvage value of zero) and spending $1 million a year in additional advertising. The company proposes to continue to maintain working capital at 10% of annual revenues. The discount rate to be used for this project is 8%.

i. What is the initial investment for this project?

ii. What is the annual operating cash flow from this project?

iii. What is the NPV of this project?

iv. How much would the firm's market share have to increase for you to be indifferent to taking or rejecting this project?

[10 marks]

[25 MARKS]

QUESTION 6

Given the deplorable state of our roads and the financial challenges that the country is experiencing , advise the Zimbabwean government on practical possible ways that it can use to finance the rehabilitation of roads,. **[25 MARKS]**