



Strathmore
UNIVERSITY

STRATHMORE BUSINESS SCHOOL
MASTER OF SCIENCE IN DEVELOPMENT FINANCE
END OF SEMESTER EXAMINATION
MDF 8101: MICRO ENTERPRISE FINANCE

Date: Wednesday, 7th March 2018

Time: 3 Hours

Instructions:

Answer question **ONE** and any other **TWO** questions

Question 1(Compulsory) (30 Marks)

- a) Discuss the objectives of working capital management and further explain the conflict that may arise between them. **(6 Marks)**
- b) Azim Furniture handles several lines of furniture, one of which is the popular medium frame. The owner Azim has decided to determine, by use of the economic order quantity (EOQ) model, the best quantity to obtain in each order. Azim has looked at past invoices and determined that he has sold about 19,500 medium frames during each of the past five years at a fairly uniform rate and he expects this to continue at that rate. He has estimated that preparation of an order and other variable costs associated with each order are about Sh.25, and it costs him about 1.5 % per month (or 18% per year) to hold items in stock. He incurs a cost for each medium frame of Sh22.

Required:

- i) By choosing to use the EOQ model, what assumptions has Azim made? **(4 Marks)**
- ii) How many medium frames should he order each time? **(4 Marks)**
- iii) Determine the approximate length of a supply order in days? **(2 Marks)**
- iv) Calculate the minimum total inventory cost Azim can incur. **(3 Marks)**
- v) How would you justify the minimum cost in part iv) above. **(3 Marks)**
- vi) A percentage discount is offered if Azim orders more units per order, what implications will he have to consider? **(3 Marks)**

- c) Ujamaa Limited, has appointed you to advise on a proposed change of their current credit policy. Under the current policy, you observe that the bad debt ratio is 12%. You also note that adopting a more stringent policy will reduce sales by 10% but it will also reduce bad-debt ratio to 8%.

Required:

If the cost of goods sold is 80% of selling price, advise if the more stringent policy should be adopted? **(5 Marks)**

Question 2 (20 Marks)

- a) Microenterprises are considered high risk and as such their development is considered as proceeding in stages and where financing options change as the venture progresses from one stage to another.
- i) Explain the financing choices available to new ventures as they develop **(10 Marks)**
 - ii) Explain why the choice of financing vehicles is an important decision for any entrepreneur. **(2 Marks)**
- b) New venture stages relate to milestones of progress. Describe what milestones are and how they are related to decisions on venture financing from both the entrepreneur's point of view and that of the financier. **(4 Marks)**
- c) Give a brief description of each of the following sources of finance and in your description indicate whether they are equity or debt financing.
- i) Loans with warrants **(2 Marks)**
 - ii) Convertible debentures **(2 Marks)**

Question 3(20 Marks)

- a) Afya Enterprises runs a "posho" mill and wants to forecast its financial requirement for 2018. The enterprise's sales for the year ending 2017 were Sh.300,000. Afya expects to increase sales by Sh.50,000 in 2018, earn a profit margin of 4%, and retain 10% of its earnings. If any additional financing is needed to support this increase in sales, Afya will issue notes payable.

Required

Using the balance sheet below and if Afya is currently utilizing 60% of its capacity, prepare a proforma balance sheet as at the end of 2018. **(11 Marks)**

Afya Balance Sheet as at 31st December, 2017

	Sh.	Sh.	Sh.
Non-Current Assets			
Machinery			150,000
Current Assets			
Cash	3,750		

Accounts Receivables	11,250	
Stock	<u>5,000</u>	
Total Current Assets		20,000
Current Liabilities		
Accounts Payable	6,750	
Other Current liabilities	<u>750</u>	
Total Current Liabilities		7,500
Working Capital		<u>12,500</u>
Total Net Assets		162,500
Financed by:		
Long Term Debt		100,000
Owner's Equity		50,000
Retained Earnings		<u>12,500</u>
Total Equity and Liabilities		162,500

- b) Utamaduni Arts and Crafts makes wooden carvings of hens and ducks. Currently the sales mix is 33% hens and 67% ducks. The following are the enterprise's revenues and costs:

	<u>Hens</u>	<u>Ducks</u>
Selling price	Sh120	Sh60
Variable cost	Sh40	Sh40

Monthly fixed costs are Sh120,000. In the next year the enterprise wants to focus on the following issues.

Required

- i) Utamaduni wants to earn Sh80,000 in profit per month, how many hens and how many ducks must it sell? **(4 Marks)**
- ii) Utamaduni believes that the mix will change to 20% Hens and 80% Ducks next year. How many hens and how many ducklings must it sell to make Sh80,000 per month next year? **(3 Marks)**
- c) Explain briefly the reason for the difference between parts a) and b). **(2 Marks)**

Question 4 20 Marks)

- a) Distinguish between the four valuations methods that are specifically geared towards early-stage businesses. **(8 Marks)**
- b) What is harvesting to an entrepreneur and why is it important to have a harvesting plan? **(5 Marks)**
- c) You have been approached to provide a valuation for a small business and you have decided to use the price earnings ratio. Prepare an introduction to your report that details why the price earnings ratio is one of the most commonly used multiples for valuing a company and include the advantages and drawbacks of its use. **(7 Marks)**

Question 5(20 Marks)

- a) Compare the traditional discounted cash flow analysis with the real options analysis. **(5 Marks)**
- b) Give at least three examples of real options and their value. **(3 Marks)**
- c) A company is considering an investment in a product that requires an initial up-front cost of Sh200,000 and is expected to produce after-tax net cash flows for the next three years. The after tax net cash flows depend critically upon customer acceptance of the product. There is a 60% probability that the product will be successful and produce annual after tax net cash flows of Sh150,000 and a 40% chance it will produce annual after tax negative cash flows of Sh25,000. The cost of capital is 10%.

Required

- (i) Compute the expected NPV of the investment. **(6 Marks)**
- (ii) If the company does not have the option to delay the project advise on the course of action to take. **(6 Marks)**