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**University Examinations 2015/2016**

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF

MASTER OF

BUSINESS ADMINISTRATION

**BFA 5176: FINANCIAL MANAGEMENT**

**DATE: AUGUST 2016 TIME: 3 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***three***questions.

**QUESTION ONE (40 MARKS)**

1. Compare the potential for agency problems in sole proprietorships, partnerships and corporations (6 marks)
2. Beta Company paid a dividend of Ksh 2 last year. The company’s dividend is expected to grow at 15% in the next 4 years, 12% in next 5 years and at 8% forever. The company’s cost of capital is 12%.

**Required:**

Determine the value of beta company’s share now. (8 marks)

1. Ngwashe Manufacturing Company is considering the following two alternatives

Working capital investment and financing policies:

|  |  |  |
| --- | --- | --- |
|  | Policy A | Policy B |
| Current assets/Sales | 60% | 40% |
| Short-term debt/Total debt | 30% | 60% |

Forecasted sales next year are Kshs 150 million. EBIT is projected to be 20 percent of sales. The company’s income tax rate is 40%. Fixed assets are Ksh100million. Ngwashe wishes to maintain its current capital structure, which consists of 60 per cent debt and 40 per cent equity. Interest rates on the company’s short term and long-term debt are 10 and 14 per cent respectively.

1. Determine the expected rate of return on equity under each of the working capital policies. (6 marks)
2. Which working capital policy is riskier? Explain (4 marks)
3. National Foods Corporation (NFC) currently processes seafood with a unit it purchased several years ago. The unit, which originally cost Ksh 500,000, currently has a book value of Ksh 250,000. NFC is considering replacing the existing unit with a newer, more efficient one. The new unit will cost Ksh 700,000 and will require an additional Ksh 50,000 for delivery and installation. The new unit will also require NFC to increase its investment in initial net working capital by Ksh 40,k000. The new unit will be depreciated on a straight-line basis over 5 years to a zero balance. NFC expects to sell the existing unit for Ksh 275,000. NFC’s marginal tax rate is 40 per cent. If NFC purchases the new unit, annual revenues are expected to increase by Ksh100,000 (due to increased processing capacity), and annual operating costs (exclusive of depreciation) are expected to decrease by Ksh 20,000. Annual revenues and operating costs are expected to remain constant at this new level over the 5-year life of the project. NFC estimates that its net working capital investment will increase by Ksh 10,000 per year over the life of the project. At the end of the project’s life (5 years), all working capital investments will be recovered. After 5 years, the new unit will be completely depreciated and is expected to be sold for Ksh 70,000. (Assume that the existing unit is being depreciated at a rate of Ksh 70,000. (Assume that the existing unit is being depreciated at a rate of Ksh 50,000 per year.)
4. Calculate the project’s net investment (6 marks)
5. Calculate the annual net cash flows for the project (6 marks)
6. Kimbo’s Kitchen, Inc. is considering acquiring Cowboy’s Takeout Corporation, a small local restaurant chain in Mombasa. Expected net cash flows from the acquisition for the first 4 years of the post-merger period follow. After 4 years, the net cash flows are expected to grow at a constant rate of 5 per cent per year. If the appropriate discount rate is 14 per cent, what is the most Kimbo’s Kitchen should pay for Cowboy’s Takeout?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 |
| Net cash flows | Kshs350,000 | Kshs400,000 | Kshs475,000 | Kshs550,000 |

(4 marks)

**QUESTION TWO (20 MARKS)**

1. By use of illustration, explain the relationship between the value of a firm and its capital structure
2. Without a corporate income tax (5 marks)
3. With a corporate income tax (5 marks)
4. Food Company has estimated the following costs of debt and equity capital (with bankruptcy and agency costs) for various proportions of debt in its capital structure:

|  |  |  |
| --- | --- | --- |
| **Proportion of Debt [D/(D+E)]** | **Cost of Debt,** ***k*d** | **Cost of Equity,*****ke*** |
| 0.00 | \_\_\_ | 10.0% |
| 0.10 | 4.0% | 10.1 |
| 0.20 | 4.2 | 10.3 |
| 0.30 | 4.4 | 10.8 |
| 0.40 | 4.8 | 11.4 |
| 0.50 | 5.5 | 12.5 |
| 0.60 | 6.6 | 14.5 |
| 0.70 | 8.0 | 18.0 |

Determine the firm’s optimal capital structure (10 marks)

**QUESTION THREE (20 MARKS)**

1. Discuss factors that determine the working capital requirement by firms (10 marks)
2. The Kahawa Manufacturing Company’s balance sheet and income statement for last year are as follows:

**Balance Sheet (in Millions of Kshs)**

|  |  |  |  |
| --- | --- | --- | --- |
| Assets |  | Liabilities and Equity |  |
| Cash and marketable securities | 887 | Accounts payable | 724 |
| Accounts receivables | 2,075 | Accrued liabilities  |  |
| Inventories\* | 2,120 |  |  |
|  |  | (salaries and benefits) | 332 |
| Other current assets | 300 |  |  |
| Total current assets | 5,382 | Other current liabilities  | 1,665 |
| Plant and equipment (net) | 3,707 | Total current liabilities  | 2,721 |
| Other assets | 687 | Long term debt and other liabilities  | 1,677 |
| Total assets  | 9,776 | Common stock  | 296 |
|  |  | Retained earnings | 5,082 |
|  |  | Total stockholders’ equity  | 5,378 |
|  |  | Total Liabilities and equity | 9,776 |
|  |  |  |  |

\*Assume that average inventory over the year was Ksh 2,120 million, that is, the same as ending inventory.

**Income Statement (in Million of Kshs)**

|  |  |
| --- | --- |
| Net sales\* | 11,990 |
| Cost of sales  | 6,946 |
| Selling, general, and administrative expenses  | 2,394 |
| Other expenses  | 581 |
| Total expenses  | 9,921 |
| Earnings before taxes | 2,069 |
| Taxes | 825 |
| Earnings after taxes (net income) | 1,244 |

**\***All sales are credit sales.

Determine the length of Kahawa’s

1. Inventory conversion period (2 marks)
2. Receivables conversion period (2 marks)
3. Operating cycle (2 marks)
4. Payables deferral period (2 marks)
5. Cash conversion cycle (2 marks)

**QUESTION FOUR (20 MARKS)**

1. Sitima Utilities Company has a present capital structure (which the company feels if optimal) of 50 per cent long-term debt, 10 per cent preferred stock, and 40 per cent common equity. For the coming year, the company has determined that its optimal capital budget can be externally financed with Ksh 70 million of 10 per cent first-mortgage bonds sold at par and Ksh 14 million of preferred stock costing the company 11 per cent. The remainder of the capital budget will be financed with retained earnings. The company’s common stock is presently selling at Ksh25 a share, and next year’s common dividend, D1, is expected to be Ksh2 a share. The company has 25 million common shares outstanding. Next year’s net income available to common stock (including net income from next year’s capital budget) is expected to be Ksh106 million. The company’s past annual growth rate in dividends and earnings has been 6 percent. However, a 5 per cent annual growth in earnings and dividends is expected for the foreseeable future. The company’s marginal tax rate is 40 per cent.

**Required:**

Calculate the company’s weighted cost of capital for the coming year (10 marks)

1. Super Stores is considering a new location that is expected to yield the following net cash flows following an initial (year 0), certain outlay of Ksh 75,000:

|  |  |  |
| --- | --- | --- |
| Year | Net Cash Flows (Ksh) | Certainty Equivalent Factor  |
| 1 | 30,000 | 0.90 |
| 2 | 30,000 | 0.80 |
| 3 | 30,000 | 0.65 |
| 4 | 20,000 | 0.50 |

1. Compute the NPV of this project at a 15 per cent cost of capital. (5 marks)
2. If the risk-free rate is 8 per cent, what is the certainty equivalent NPV for the new location? (5 marks)

**QUESTION FIVE (20 MARKS)**

1. Explain the differences between signaling theory and agency theories of dividend (4 marks)
2. The following is the earnings per share (EPS) record of Biashara ltd over the past 10 years

|  |  |  |  |
| --- | --- | --- | --- |
| Year | EPS | Year  | EPS  |
| 1 | 1 | 2 | (2) |
| 3 | 9 | 4 | 6 |
| 5 | 12 | 6 | 16 |
| 7 | 15 | 8 | 16 |
| 9 | 19 | 10 | 20 |

**Required:**

Determine the annual dividend in the following cases:

1. If the firms dividend policy is based on a constant dividend payout ratio of 50% for all years (5 marks)
2. If the firm pays dividend at Ksh 8 per share, and increases to Ksh 10 per share when earnings exceeded Ksh 14 per share for the previous two consecutive years (5 marks)
3. If the firm pays dividend at Ksh 7 per share each year except when EPS EXDEEDS Ksh 14 per share when an extra dividend equal to 80% of earnings beyond Ksh 14 would be paid. (6 marks)
4. Which type of dividend policy will you recommend to the company and why (4 marks)