**GARISSA UNIVERSITY**

**SCHOOL OF BUSINESS AND ECONOMICS**

**BBM 231: BUSINESS FINANCE**

**MAIN EXAMINATION AUGUST 2021**

**Instructions: Answer Question ONE and Any other TWO Questions from Section B**

**QUESTION ONE**

a) Explain two approaches that could be used by a company to Finance its

 Working capital requirements. (4 marks)

b) Calculate the future value of sh 1,000,000 deposited in a saving account at 5% interest

 rate for 5 years.If interest is payable:

i) Half yearly (2 marks)

ii) Quarterly (2 marks)

c) State four functions of the capital markets regulator in your country. (4 marks)

 d) The following information relates to two potential investments namely; A and B.

|  |  |  |  |
| --- | --- | --- | --- |
| **Investment A** |  | **Investment B** |  |
| **Probability** | **Return** | **Probability** | **Return** |
| 0.30.40.3 | 20%8%-4% | 0.20.60.2 | 20%8%-4% |

**Required:**

The standard deviation of each of the two investments (6 marks)

 e) Distinguish between the following terms as used in finance.

 i) Perfect markets and efficient markets (4 marks)

 ii) Future and forwards (4 marks)

 iii) Business risk and financial risk (4 marks)

 **Total marks (30 marks)**

**QUESTION TWO**

a) At the beginning of year 2008, James Chiro deposited Sh.1,000,000 in an investment account which earned compound interest at 15% per annum. At the beginning of each subsequent year, James Chiro deposited a further Sh.500,000 in the same account.

###### **Required:**

a) The amount of money in the investment account by the end of year 2012 (3 marks)

b)i) Distinguish between weighted average cost and marginal cost of capital. (4marks)

 ii) The optimal capital structure of DP Ltd. is as shown below

|  |  |
| --- | --- |
| Sources of capital  | Weight |
|  | % |
| Long term debt  | 40 |
| Preference share capital  | 10 |
| Ordinary share capital  | 50 |

The company is contemplating selling sh. 10 million worth of 20 – year 9% bonds with sh.1,000 par value. The market price of the bond is currently sh. 980. Assume a tax rate of 30%. In addition, the company will issue 10% preference shares (sh. 100 par value) that are expected to sell at sh.87 each incurring sh. 5 per share in floatation costs. Ordinary shares, currently priced at sh. Sh. 50 per share will also be issued Next year, the company expects to pay dividend of sh. 4 per share. Past dividend patterns are as follows;-

|  |  |
| --- | --- |
| **year** | Dividend per share |
| **2010** | **3.8** |
| **2009** | **3.62** |
| **2008** | **3.47** |
| **2007** | **3.33** |
| **2006** | **3.12** |
| **2005** | **2.97** |

###### A new issue of ordinary shares will attract sh. 3 discount and a floatation cost of sh. 2.5 per share. The company has sh. 300,000 in retained earnings and is considering investing in a project which will cost sh. 1,200,000

###### Required: i) The marginal cost of capital (MCC) assuming a 30% tax rate. (8 marks)

######  ii) Retained earnings break point. (5 marks)

 **Total marks (20 marks)**

**QUESTION THREE**

 a) Write shorts notes on the following:

 i) Diversification (2 marks)

 ii) Systemic risk (2 marks)

 iii) Unsystematic risk (2 marks)

 b) Wanga Ltd. maintains a minimum cash balance of Sh. 1,500,000.

 The standard deviation of the daily cash is Sh.800, 000. The annual interest rate is 12%.

The transaction cost of buying and selling of marketable securities is Sh.200 per transaction. Assume that one year has 365 days.

**Required:**

Using the Miller-Orr cash management model, determine:

* 1. The return point.
	2. Average cash balance.

iii) The upper cash limit (6 marks)

c) Explain any three motives of holding cash (6 marks)

d) Explain the term agency theory as applied in financial management. (2 marks)

###  Total marks (20 marks)

### QUESTION FOUR

a) Explain three limitations of the goal of profit maximization. (6marks)

c) Highlight two assumptions of Baumols model (2 marks)

d) Sally Chemicals Ltd is considering replacing a production machine at its plant in the industrial area. The existing production machine at the plant was bought 3 years ago at a cost of Sh. 50 million with an expected useful life of 8 years with no scrap value at the end of this period. The existing machine could be disposed of immediately with net proceeds of Sh. 35 million after tax. The new machine will cost the company Sh. 80 million with a useful life of 5 years and an expected terminal value of Sh. 5 million. Additional installation cost for the new machine will be Sh. 6 million.

With the introduction of the new machine, sales are expected to increase by Sh. 25 million per annum over the next five years. However, electricity costs will increase by Sh. 400,000 per annum. The contribution margin will be 40% and the corporate tax rate is at 30%.

The operation of the new machine will also require an immediate investment of Sh. 8 million in working capital which will be recovered at the end of its useful life. The company uses the straight line method of depreciation.

The company's cost of capital is 12%. Ignore capital gains.

# Required:

i) The initial cash outflow for the replacement decision. (4 marks)

ii) Using the net present value (NPV) criteria, advise the management of

 Sally Chemicals Ltd on whether to replace the machine. (8 marks)

### QUESTION FIVE

a) Simon borrowed Sh.1, 000,000 from ABSA Bank at an annual compound interest of 14% on the reducing balance. The loan was repayable in annual installments over a period of four years. The installments were payable at end of the year.

###### Required:

A loan amortization schedule (10 marks)

### b) Discuss three factors that a company should consider when formulating its dividend policy (6 marks)

c) Outline four advantages of paying scrip dividends (4 marks)

 **Total marks (20 marks)**