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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

THURSDAY: 25 April 2024. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) In relation to agency theory:

(i) Highlight **THREE** types of conflicts between shareholders and government. (3 marks)

(ii) Propose **THREE** solutions to the conflicts identified in (a) (i) above. (3 marks)

(b) Highlight **SIX** functions of financial intermediaries in an economy. (6 marks)

(c) The following information relates to two potential investments namely; investment M and investment K:

Investment M		Investment K	
Probability	**Return**	**Probability**	**Return**
0.30	20%	0.20	20%
0.40	8%	0.60	8%
0.30	-4%	0.20	-4%

Required:

(i) Compute the expected return for each investment. (2 marks)

(ii) Determine the standard deviation of investment M and investment K. (4 marks)

(iii) Compute the portfolio return assuming that 30% of the total wealth is invested in investment M and 70% in investment K. (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) Differentiate between a "unit trust" and a "mutual fund". (4 marks)

(b) Sophia Wambia intends to invest Sh.2,000,000 in a 12% debenture for 3 years. The current market value of the debenture is Sh.80 per debenture. The required rate of return on the debenture is 10% and the par value is Sh.100.

Required:

Advise the investor on whether or not to invest in the debenture. (4 marks)

(c) Madarax Ltd. is an e-business company that trades solely over the internet. In the year 2023, the company made sales worth Sh.15,000,000.

All sales were on 30 day's credit to commercial customers.

Extracts from the company's most recent statement of financial position relating to working capital are as follows:

	Sh."000"
Trade receivables	2,466
Trade payables	2,220
Bank overdraft	3,000

Additional information:

1. In order to encourage customers to pay on time, Madarax Ltd. proposes introducing an early settlement discount of 1% for payment within 30 days while increasing its normal credit period to 45 days.
2. It is expected that on average, 50% of customers will take the discount and pay within 30 days, 30% of customers will pay within 45 days and 20% of customers will not change their current paying behaviour and will pay within 60 days.
3. Madarax Ltd. currently orders 15,000 units per month of product P, demand for which is constant. There is only one supplier of product P. The cost of product P purchases over the last year was Sh.540,000.
4. The supplier has offered a 2% discount for orders of product P of 30,000 units or more. Each order costs Madrax Ltd. Sh.150 to place and the holding cost is Sh.0.24 per unit per year.
5. Madrax Ltd. has an overdraft bank facility charging interest at the rate of 6% per year.

Assume a 365 days-year.

Required:

(i) Calculate the net benefit or cost of the proposed changes in trade receivables policy and comment on your findings. (6 marks)

(ii) Using suitable computation, determine whether the bulk purchase discount offered by the supplier is financially acceptable. Comment on the assumptions made in your computation. (6 marks)

(Total: 20 marks)

QUESTION THREE

(a) In relation to emerging trends in finance, explain the term "cryptocurrency". (2 marks)

(b) The directors of Bandala Ltd. are reviewing the options relating to a machine that is a key part of the company's production process.

Option 1: Replace the machine:

The cost of the new machine would be Sh.1,000 million payable immediately.

Maintenance cost would be payable at the end of each year of the project.

The first maintenance payment for the new machine is Sh.51 million although this is expected to rise by 8% per year.

Option 2: Overhaul the existing machine:

The alternative to replacement is a complete overhaul of an existing machine, the cost of which would be Sh.650 million also payable immediately. This would be classified as capital expenditure.

However, under this option, the annual maintenance cost will be higher at Sh.81 million in year 1, with expected annual increase of 11%.

As the new machine is likely to reduce the variable costs, the contribution will be different depending on which machine is used.

The contribution from each machine (excluding maintenance costs) is tabulated as follows, with the inflows of funds assumed to be at the end of each year:

Year	**1**	**2**	**3**	**4**	**5**
Contribution of new machine (**Sh."000"**)	310,000	330,000	380,000	420,000	440,000
Contribution of overhauled machine (**Sh."000"**)	260,000	300,000	310,000	320,000	320,000

The cost of capital is 12%. Ignore taxation.

Required:

(i) Calculate the net present value (NPV) of each option. (8 marks)

(ii) Estimate the internal rate of return (IRR) of each option. (6 marks)

(iii) Interpret the result that you have obtained in (b) (i) and (b) (ii) above and recommend which alternative should be chosen. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Ploughing back profits of a company is an internal source of funds for an organisation.

Required:

(i) Identify **FOUR** merits of ploughing back profits by a company. (4 marks)

(ii) Outline **FOUR** demerits of ploughing back profits by a company. (4 marks)

(b) The following information has been extracted from the books of Bidii Ltd. for the year ended 31 December 2023:

Earnings after taxes	Sh.3.75 million
Total dividends	Sh.2.25 million
Number of shares outstanding	500,000 shares
Cost of capital	10%
Rate of return on investments	12.5%

Required:

The theoretical market value of the company's shares using the Walter's model. (6 marks)

(c) A company negotiates a Sh.30 million loan for eight years from a financial institution. The interest rate is 14% per annum on the outstanding balance of the loan. The principal and interest will be repaid in eight equal year-end instalments.

Required:

(i) Prepare a loan repayment schedule. (5 marks)

(ii) Determine the amount of interest payable at the end of the 8^{th} year. (1 mark)

(Total: 20 marks)

QUESTION FIVE

(a) Examine **TWO** ethical issues that need to be adhered to in the marketing of Islamic products and services. (4 marks)

(b) The managing directors of three profitable listed companies summarised their companies dividend policies as follows:

- Company A has deliberately paid no dividends for the last five years.
- Company B always pays a low dividend per share (after adjusting for the general price index) and offer regular bonus issues.
- Company C always pays a dividend of 5% of earnings after taxation.

Each managing director is convinced that his company dividend policy is maximising shareholders wealth.

Required:

Identify the dividend theory applied by each of the three companies. (3 marks)

(c) You are presented with the following information in relation to Furaha Ltd. for the year ending 31 December 2024:

	Sh.
Net sales	3,000,000
Current liabilities	1,500,000
Debt-assets ratio	0.6
Debtors turnover based on net sales	2
Net profit margin	5%
Gross profit margin	25%
Inventory turnover ratio	1.25
Return on total assets	2%
Fixed asset turnover	0.8
Corporation tax rates	50%

Required:
Compute the following:

(i) Cost of sales. (1 mark)

(ii) Receivables. (1 mark)

(iii) Net profit. (1 mark)

(iv) Closing inventory. (1 mark)

(v) Total assets. (1 mark)

(vi) Non-current assets. (1 mark)

(vii) Long-term debt. (1 mark)

(d) Prepare a forecasted statement of profit or loss and statement of financial position for the year ending 31 December 2024 based on your results in (c) (i) to (c) (vii) above. (6 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

THURSDAY: 7 December 2023. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Explain **FOUR** corporate objectives that may conflict with the financial objective of a firm. (8 marks)

(b) Mapema Ltd. is considering investing in one of the following two mutually exclusive projects. The relevant cash flows of each of the projects are as shown in the table below:

		Annual cash flows	
		Project X	**Project Y**
		Sh."000"	**Sh."000"**
Initial investment		(57,750)	(55,500)
Cash flows			
Year:	1	37,500	45,000
	2	(16,500)	12,000
	3	30,000	(6,000)
	4	22,500	33,000
	5	9,000	(15,000)
	6	7,500	22,500

Additional information:

1. The firm's cost of capital is 15%.
2. Cash flows accrue at the end of the year.

Required:

Compute the following for each project:

(i) Discounted payback period. (5 marks)

(ii) Modified internal rate of return (MIRR). (5 marks)

(iii) Profitability index (PI). (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) Explain the following terms as used in personal financial management:

(i) Retirement planning. (2 marks)

(ii) Estate tax planning. (2 marks)

(b) Job Nyangaya plans to invest in two securities; security A and security B.

The returns on each security is dependent on the state of the economy as shown below:

State of economy	Probability	Return on security A	Return on security B
Boom	0.40	27%	36%
Average	0.50	21%	33%
Recession	0.10	18%	31.5%

Required:

(i) The standard deviation for security A and security B. (4 marks)

(ii) The covariance between security A and security B. (2 marks)

(iii) The correlation of coefficient between security A and security B. (2 marks)

(c) Tabaka Fabricators Enterprise purchases one of its raw materials branded "Zed" externally. The annual demand for material "Zed" is 400,000 units. The company is planning to change its purchasing system to a just in time (JIT) system to improve efficiency.

The following information is provided:

	Current System	**Proposed system (JIT)**
Purchase cost per unit (Sh.)	25	25
Ordering cost per order (Sh.)	10,000	2,500
Inventory holding cost	20%	20%

Additional information:

1. To implement the new system, a one time cost of Sh.140,000 will be incurred.
2. The new system is expected to have a lifespan of 8 years.
3. The required rate of return for the firm is 18%.
4. The corporate tax rate is 30%.

Required:

Advise the management of Tabaka Fabricators Enterprise on whether to implement the proposed system. (8 marks)

(Total: 20 marks)

QUESTION THREE

(a) Outline **FIVE** eligibility requirements for public offering of shares and listing at the securities exchange in your country. (5 marks)

(b) EFG Ltd. issued 300,000, 15% preference shares of Sh.100 each, redeemable at 10% premium after 20 years. Floatation costs amounted to Sh.3,000,000.

Required:

Determine the cost of preference share capital where the shares are issued at:

(i) Par. (2 marks)

(ii) A premium of 10%. (2 marks)

(iii) A discount of 10%. (2 marks)

(c) An investor plans to borrow a loan of Sh.3 million to purchase a piece of land for his family. The interest rate agreed upon is discounted at a rate of 10% per annum. The loan is repayable in 4 years of equal instalments.

Required:

(i) Amount payable per instalment. (1 mark)

(ii) A loan amortisation schedule. (4 marks)

(d) Jane Kiyo has the following investment options to choose from:

- Post Office MIS Scheme, monthly interest — 8% per annum.
- ICD Bank Deposit, quarterly interest — 8.25% per annum.
- HDFC Ltd., half-yearly interest — 8.50% per annum.

Required:

Using effective interest rate (EIR) method, advise Jane Kiyo on the preferred investment option. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) In relation to measuring business performance in a company:

(i) Examine **FOUR** applications of financial ratio analysis by the management of the company. (4 marks)

(ii) Describe **FOUR** weaknesses associated with financial ratio analysis. (4 marks)

(b) The following is an extract of statement of financial position for Oak Timber Ltd. for the year ended 30 September 2023:

Oak Timber Ltd.
Extract of statement of financial position
for the year ended 30 September 2023

	Sh."million"	Sh."million"
Equity and liabilities:		
Equity:		
Share capital	17	
Retained earnings	15	32
Total equity		32
Non-current liabilities:		
Long term borrowings	13	
Current liabilities	21	34
Total liabilities		34
Total equity and liabilities		66

Additional information:

1. The share capital of Oak Timber Ltd. consists of Sh.12 million of ordinary shares and Sh.5 million, 5% irredeemable preference shares.
2. The ordinary shares of Oak Timber Ltd. have a nominal value of Sh.0.50 per share, an ex-dividend market price of Sh.7.07 per share and a cum dividend market price of Sh.7.52 per share. The dividend for the year 2023 will be paid in the near future.
   Dividends paid in recent years have been as follows:

Year	**2022**	**2021**	**2020**	**2019**
Dividend per share (Sh.)	0.43	0.41	0.39	0.37

3. The 5% irredeemable preference shares of Oak Timber Ltd. have a nominal value of Sh.0.50 per share and an ex-dividend market price of Sh.0.31 per share.
4. The long-term borrowings of the firm consist of Sh.10 million of 7% loan notes and Sh.3 million bank loan. The bank loan has a variable interest rate.
5. The 7% loan notes have a nominal value of Sh.100 per loan note and a market price of Sh.102.34 per loan note. Annual interest has just been paid and the loan notes are redeemable in four years' time at a rate of 5% premium to nominal value.
6. The corporation tax rate is 30%.

Required:

Compute the following:

(i) Cost of equity. (3 marks)

(ii) Cost of preference shares. (2 marks)

(iii) The cost of 7% loan notes. (3 marks)

(iv) After tax weighted average cost of capital (WACC) for the firm using market value. (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Describe **THREE** contracts applied in Islamic Finance. (6 marks)

(b) Summarise **FOUR** distinct features of commercial paper as a short term source of finance. (4 marks)

(c) Merip Ltd. expects to make payments of Sh.9,000,000 in the coming year. The firm's investment in marketable securities generates an annual return of 20%. The minimum cash balance maintained by the firm at all times is Sh.300,000. The firm incurs a cost of Sh.30 per transaction when converting marketable securities into cash.

Assume a year has 360 days.

Required:
Using Baumol's model of cash management, determine:

(i) The optimal cash balance. (2 marks)

(ii) Total relevant cost incurred in each year. (2 marks)

(iii) The average cash balance. (2 marks)

(d) The following financial information relates to Steps Ltd. for the year ended 30 September 2023:

1. Adjusted net operating profit after tax (NOPAT) is Sh.180 million.
2. Total capital is Sh.900 million (no debt).
3. Closing market share price is Sh.29.
4. Total number of shares outstanding is 86 million.
5. The cost of equity is 13%.

Required:
Compute the following relative performance measures for Steps Ltd.:

(i) Economic value added (EVA). (2 marks)

(ii) Market value added (MVA). (2 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

THURSDAY: 24 August 2023. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Outline **FOUR** limitations of profit maximisation as a financial goal of a firm. (4 marks)

(b) Evaluate **FOUR** features of preference shares as a source of capital to a firm. (4 marks)

(c) Maca Ltd. is considering raising funds for an expansion programme through a rights issue. The expansion programme is expected to cost Sh.20 million. The company has currently issued 2,400,000 ordinary shares which are currently selling for Sh.30 each. The board of directors have proposed an offer price of Sh.25 per share.

The funds to be raised will be invested in a project which is expected to generate net operating cash flow of Sh.6,000,000 each year over the project's useful life of five years. The salvage value of the project after five years is estimated at Sh.5,000,000. The cost of capital for the firm is 12% per annum.

Required:

(i) Cum-right market price per share (MPS). (2 marks)

(ii) Number of rights required to buy one new ordinary share. (1 mark)

(iii) Theoretical ex-right market price per share. (2 marks)

(iv) Theoretical value of each right. (2 marks)

(v) Evaluate the impact of the rights issue on the value of wealth of an existing shareholder who owns 1,200 ordinary shares in the company and Sh.15,000 in his savings account under the various options available to him. (5 marks)

(Total: 20 marks)

QUESTION TWO

(a) (i) Distinguish between "temporary working capital" and "permanent working capital" in relation to working capital management. (2 marks)

(ii) The monthly working capital requirement for Mbuni Ltd. are given as follows:

Month	**Total working capital requirement Sh."000"**
January	3,000
February	2,500
March	2,000
April	1,500
May	1,500
June	1,700
July	1,800
August	2,800
September	3,200
October	3,500
November	3,600
December	3,800

The short term cost of financing working capital is 15% per annum whereas the long-term financing cost is 20% per annum.

The firm adopts an aggressive policy in financing its working capital needs. 80% of the firm's permanent working capital are financed using short term funds and the balance is financed using long term funds.

Required:
Determine the total cost of financing the working capital needs of the firm. (6 marks)

(b) Fila Ltd. is considering to purchase a new machine so as to improve its production process which is currently being undertaken manually. The machine costs Sh.13,950,000. The firm will incur installation cost of Sh.450,000. The machine will have an economic life of 6 years but will require an overhaul at the end of the fourth year. The overhaul will cost Sh.1,125,000. After six years, the machine could be disposed of for Sh.900,000.

The company estimates that that it will cost Sh.2,100,000 per year to operate the new machine. The current manual production method costs Sh.5,250,000 per annum. In addition to reducing annual operating costs, the new machine will allow the company to increase production capacity by 120,000 units per annum. The company realises a contribution margin of Sh.45 per unit.

Additional information:
1. The company applies straight-line method of depreciation.
2. Corporate tax rate is 30%.
3. Fila Ltd. requires 20% return an all investment.

Required:
Using the Net Present Value (NPV) project evaluation method, advise Fila Ltd. on whether or not to purchase the machine. (12 marks)

(Total: 20 marks)

QUESTION THREE

(a) By aid of a diagram, differentiate between "systematic risk" and "unsystematic risk" in relation to portfolio analysis. (4 marks)

(b) Utamu Enterprises operates a fruit juice processing business. The financial manager has realised a consistent relationship among the following items as a percentage of sales:

1. Current assets 65%
2. Accounts payable 10%
3. Non-current assets 25%
4. Other current liabilities 12%

The statement of financial position for the year ended 31 December 2022 was as follows:

Utamu Enterprises
Statement of financial position as at 31 December 2022

	Sh.	Sh.
Non-current assets		2,500,000
Current assets		6,500,000
Total assets		9,000,000
Current liabilities:		
Accounts payable	1,000,000	
Notes payable	1,200,000	
Other current liabilities	1,200,000	3,400,000
Equity and non-current obligations:		
Ordinary share capital	2,000,000	
Retained earnings	2,600,000	
Long term loan	1,000,000	5,600,000
Total equity and non-current obligations		9,000,000

Additional information:

1. The profit after tax margin is 5% and the company sales for the year ended 31 December 2022 were Sh.10 million.
2. Sales are expected to grow by 10% every year for the next 5 years.
3. The notes payable were paid off.

Required:

Using the percentage of sales method of financial forecasting:

(i) Determine the external financial requirement for the business for the year ending 31 December 2027. (8 marks)

(ii) Prepare a program statement of financial position for the year ending 31 December 2027. (8 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Financial planning is one of the most crucial steps for any person, regardless of whether they earn any income or not. While many people understand the importance of financial planning, it is still one of the steps that are postponed or skipped:

With regards to the above statement, summarise **FOUR** benefits of financial planning to an individual. (4 marks)

(b) Describe **FOUR** forms of dividend payments that a company could use while making dividend decisions. (4 marks)

(c) Zora Ltd., a securities market listed company has the following recent financial information:

	Sh.“000”
Profit after tax (earnings)	99,900
Dividends	60,000

Statement of financial position information:

	Sh.“000”	**Sh.“000”**
Non-current assets		892,500
Current assets		187,500
Total assets		1,080,000
Current liabilities		105,000
Equity:		
Ordinary shares (Sh.1 par value)	120,000	
Reserves	615,000	735,000
Non-current liabilities:		
6% bank loan	60,000	
8% bonds (Sh.100 par value)	180,000	240,000
Total equity and liabiltieis		1,080,000

Additional information:

1. Financial analysts have forecast that the dividend of the company will grow in the future at a rate of 4% per year. This is slightly less than the forecast growth rate of the profit after tax (earnings) of the company, which is 5% per year.
2. Considering the risk associated with expected earnings growth, earnings yield of 11% per annum can be used for valuation purposes.
3. Zora Ltd. has a cost of equity of 10% per annum and a before tax cost of debt of 7% per annum.
4. The 8% bonds will be redeemed at par value in six years' time and the company pays tax at an annual rate of 30% per annum.
5. The ex-dividend market share price of Zora Ltd. is Sh.8.50 per share.

Required:

Calculate the value of Zora Ltd. using the following valuation methods:

(i) Net asset value method. (2 marks)

(ii) Dividend growth model. (2 marks)

(iii) Earnings yield method. (2 marks)

(d) Using the information in (c) above, calculate the weighted average after tax cost of capital (WACC) of Zora Ltd. using market values. (6 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Outline **FIVE** factors driving financial innovation in the recent past. (5 marks)

(b) Joel Ouma needs Sh.9,000,000 in five years' time to purchase a house. He is determined to deposit a given amount of money each quarter in a sinking fund that earns interest at the rate of 12% compounded quarterly for five years.

Required:

Compute the amount of money that Joel Ouma should deposit in each quarter in a sinking fund so as to enable him realise Sh.9,000,000 in five years time. (5 marks)

(c) Penda Ltd. deals with laboratory accessories. A dropper sells for Sh.500 per piece and has a variable cost equivalent to 50% of the selling price per piece of the dropper. The firm has a fixed operating cost of Sh.500,000 and fixed financing cost of Sh.750,000.

Further analysis of the firm reveals that if the firm sales increase by 10%, the firm's earnings before interest and taxes (EBIT) increase by 15% and if the firm's EBIT increase by 10%, the firm's earnings per share (EPS) increases by 12%.

Required:

Calculate the following measures of leverage for the firm:

(i) Break-even quantity of sales in units. (2 marks)

(ii) Operating break-even quantity of sales in units. (2 marks)

(iii) Degree of operating leverage (DOL). (2 marks)

(iv) Degree of financial leverage (DFL). (2 marks)

(v) Degree of total leverage (DTL). (2 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

THURSDAY: 27 April 2023. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Management of a limited liability company is appointed to promote and protect shareholders' interest in the performance of their functions. The aim is to maximise shareholders'value. The management, however, could have interest that might be in conflict with shareholders' interest.

Required:
In reference to the above statement:

(i) Identify this type of conflict in modern day financial management of a firm. (1 mark)

(ii) Explain **THREE** factors that could contribute to the conflict identified in (a) (i) above. (3 marks)

(iii) As a financial management professional, explain **FOUR** strategies that could be used to manage or mitigate this conflict to protect shareholders. (4 marks)

(b) Cipo Ltd. is evaluating an investment project which requires the importation of a new machine at a cost of Sh.3,700,000. The machine has a useful life of six years and a salvage value of sh.1,000,000.

Additional information:

1. The following additional costs would be incurred in relation to the machine:

	Sh.
Modification cost	1,000,000
Import duty	900,000
Installation cost	375,000
Freight charges	225,000

2. The machine is expected to increase the company's annual cash flow (before tax) as shown below:

Year	**1**	**2**	**3**	**4**	**5**	**6**
	Sh."000"	**Sh."000"**	**Sh."000"**	**Sh."000"**	**Sh."000"**	**Sh."000"**
Increase in cash flow	1,760	1,360	1,050	900	840	750

3. The machine is to be fully depreciated over its useful life using the straight-line method.
4. The corporate rate of tax is 30% while the cost of capital is 10%.
5. The maximum acceptable payback period for the company for all capital project is four years.

Required:

(i) Total initial cost. (2 marks)

(ii) Annual net cash flow. (3 marks)

(iii) Payback period of the machine. (3 marks)

(iv) Net present value (NPV) of the machine. (3 marks)

(v) Advise the company's management on whether to import the machine based on your results in (b) (iii) and (b) (iv) above. (1 mark)

(Total: 20 marks)

QUESTION TWO

(a) Summarise **FIVE** factors that firms should consider when making financing decisions. (5 marks)

(b) The following information was extracted from the financial statements of Rembo Ltd. for the year ended 31 December 2022:

Capital structure	**Amount Sh."000"**
Ordinary shares: 750,000 shares of Sh.20 each	15,000
Retained earnings	48,900
8% preference shares (Sh.100 par value)	5,000
10% debentures	7,500
	76,400

Additional information:

1. The preference shares were originally sold in 2014 at Sh.104 per share. The current price is Sh.94 although a similar issue can be made at Sh.89 net.
2. Ordinary shares are currently selling at Sh.38.40 on the securities exchange.
3. The debentures were sold in 2015 and realised Sh.96 per unit. The current price is Sh.80 and it is anticipated that a similar issue would also sell at Sh.80 per unit. Corporate tax rate is 30%.
4. Last year's dividend amounted to Sh.3,000,000 which was 70% of the net earnings. The company expects these dividends to grow at a rate of 6% per annum and the dividend payout ratio to remain the same.
5. New ordinary shares can be sold at Sh.40 but in order to guarantee success, they would have to be sold at Sh.35 per share.

Required:

(i) Cost of preference shares. (2 marks)

(ii) Cost of ordinary shares. (2 marks)

(iii) Cost of debentures. (2 marks)

(iv) Market weighted average cost of capital (WACC) of the firm. (3 marks)

(c) Umi Limited is contemplating to issue 8% bonds redeemable at Sh.100 par value in three years time. Alternatively, each bond may be converted on that date into 30 ordinary shares of the company. The current market price per share is Sh.3.30 and this is expected to grow at a rate of 5% per annum. The company's cost of debt is 6% per annum.

Required:

Compute the following:

(i) Market value of the bond assuming conversion occur after 3 years. (2 marks)

(ii) The floor value of the bond assuming redemptions occur at par. (2 marks)

(iii) The conversion premium per share. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) Highlight **FIVE** reasons for the increased popularity of Islamic Finance in the recent past. (5 marks)

(b) Bright Moon Ltd. currently owns 100,000 outstanding ordinary shares with a market price of Sh.10 per share. The firm has Sh.1 million earnings after tax and intends to invest Sh.2 million during the year 2023. The firm is also considering declaring a dividend of Sh.5 per share at the end of the year. The firm's opportunity cost of capital is 10%.

Required:

(i) The price of the share at the end of the year 2023 assuming dividend is not declared. (2 marks)

(ii) The price of the share at the end of the year 2023 assuming dividend is declared. (2 marks)

(iii) The number of new shares to be issued in (b) (i) and (b) (ii) above. (6 marks)

(c) The Maji Group portfolio comprises of Maji A shares with an expected return of 10% and a standard deviation of 20% and Maji B shares with an expected return of 16% and a standard deviation of 40%. The correlation between Maji A shares and Maji B shares is 0.4. The portfolio is comprised of 30% Maji A and 70% Maji B.

Required:

(i) The expected return of the portfolio. (2 marks)

(ii) The standard deviation of the portfolio. (3 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Distinguish between the following terms as used in financial institutions and markets:

(i) "Disintermediation" and "intermediation". (2 marks)

(ii) "Call markets" and "continuous markets". (2 marks)

(b) Outline **FOUR** roles of mutual funds as investment avenues. (4 marks)

(c) The following statement of profit or loss relates to Memuko Ltd. for the year ended 31 December 2022 and 31 December 2021:

Memuko Ltd
Statement of profit or loss for the years ended 31 December:

	2022 Sh."000"	2021 Sh."000"
Net sales	52,678.5	46,485
Cost of goods sold	(19,039.5)	(16,632)
Gross margin	33,639	29,853
Selling and administrative expenses	(19,737)	(17,037)
Other operating expenses	(1,228.5)	(469.5)
Operating income	12,673.5	12,346.5
Interest expense	(1,099.5)	(532.5)
Other income (net expenses)	9,715.5	1,482
Income before taxes	21,289.5	13,296
Income tax expense	(3,576)	(3,060)
Net income	17,713.5	10,236

Required:

(i) Present the common size analysis for Memuko Ltd. income statement. (8 marks)

(ii) Analyse the changes in cost of goods sold, selling and administrative expenses, operating income and income before taxes for the year ended 31 December 2022 compared to 31 December 2021. (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Distinguish between "herd behaviour" and "anchoring bias" as used in behavioural finance. (4 marks)

(b) Outline **SIX** steps involved in personal financial management. (6 marks)

(c) The following financial statement data relates to Bamaco Ltd. for the year ended 31 December 2022:

	Sh."000"
Inventory - Opening balance	4,000
- Ending balance	4,600
Trade receivables	5,000
Trade payables	3,400
Credit sales	50,000
Cost of goods sold	40,000

Number of days in a year is 365 days.

Required:

Compute the net operating cycle of Bamaco Ltd. (6 marks)

(d) John Osoro has deposited Sh.700,000 into a savings account at an annual interest rate of 5% compounded monthly with additional deposits of Sh.10,000 per month (made at the end of each month).

Required:

Determine the value of the investment after 10 years. (4 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

THURSDAY: 8 December 2022. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Ethical responsibilities arise not as a result of legal requirements but as a result of moral imperative for companies to operate in an ethical and fair manner.

In light of the above statement, summarise **SIX** elements of business ethics in management of companies. (6 marks)

(b) Highlight **FOUR** factors that influence the choice of debt finance by a company. (4 marks)

(c) Your client, Alfred Otieno, wishes to invest Sh.500,000 for two years (with interest compounded) but with the right to withdraw at a moment's notice. The following investment options are available:

Option I: Invest with Nyumba Building Society currently offering an interest rate of 14% per annum after tax with interest paid half yearly.

Option II: Invest with Kijiji Bank Ltd. at an interest rate of 17% per annum with interest paid annually.

Option III: Invest with Faida Bank Ltd. which is offering 16% per annum, interest paid every three months.

Required:

(i) Using suitable computations, advise your client on the best investment option he should consider. (6 marks)

(ii) Calculate the effective rate of interest for option I. (2 marks)

(iii) Identify **TWO** situations that could affect your recommendation in (c) (i) above. (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) Dopco Ltd. has provided the following summary of statement of financial position for the year ended 30 September 2022:

	Sh. "000"	Sh. "000"	Sh. "000"
Non-Current Assets:			
Freehold land and buildings			320,000
Plant and machinery			160,000
Equipment			40,000
			520,000
Goodwill			40,000
			560,000
Current Assets:			
Inventory		160,000	
Trade receivables		120,000	
Short term investments		30,000	
Cash		10,000	
		320,000	
Current Liabilities:			
Trade payables	120,000		
Taxation	40,000		
Proposed ordinary shares dividends	40,000	(200,000)	120,000
			680,000

	Sh. "000"	Sh. "000"	Sh. "000"
Equities and liabilities			
12.6% long-term bonds			(120,000)
Deferred Taxation			(20,000)
			540,000
Ordinary shares of Sh.10 each			160,000
Reserves			280,000
			440,000
6% preference shares			100,000
			540,000

Required:

(i) Determine the value of each ordinary share using the Net Asset value basis of valuation. (5 marks)

(ii) Outline **THREE** reasons for valuing securities of a company. (3 marks)

(b) The following information relates to security X and security Y returns for the year 2021:

	Returns %	
Probability	**Rx**	**Ry = 6 + 0.2 Rx**
0.10	30	$= 6 + 0.2 \times 30 = 12$
0.20	20	10
0.40	15	9
0.20	10	?
0.10	-50	?

Required:

(i) Determine the expected returns for security X and security Y. (2 marks)

(ii) Determine the standard deviation for each security. (4 marks)

(iii) Determine the covariance between security X and security Y. (4 marks)

(iv) Determine the correlation coefficient between security X and security Y. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) Identify **FIVE** ways to achieve personal financial freedom. (5 marks)

(b) Baraka Traders Ltd. has a minimum cash balance limit of Sh.100,000. The standard deviation of the daily cash flows is Sh.25,000. The interest rate of the marketable securities is 9.2% per annum.

The transactional cost for each sale or purchase of security is Sh.200.

Assume a 365-day year.

Required:

Using Miller-Orr cash management model, determine:

(i) Target cash level. (2 marks)

(ii) Upper cash limit. (2 marks)

(iii) Average cash balance. (2 marks)

(iv) The spread. (1 mark)

(c) Jawabu Ltd. is evaluating a project with an expected useful life of 6 years and the following characteristics:

1. Fixed capital investment of Sh.4,000,000.
2. The initial investment in net worth working capital is Sh.400,000.
   At the end of each year, net working capital must be increased so that the cumulative investment in net working capital is one-sixth of the next year projected sales.
3. The fixed capital is depreciated on cost at the following rates: 30% in year 1, 35% in year 2, 20% in year 3, 10% in year 4, 5% in year 5 and 0% in year 6.

4. Sales are Sh.2,400,000 in year 1, they grow at 25% annual rate for the next two years and then grow at 10% annual rate for the last three years.
5. Fixed cash operating expenses are Sh.300,000 for year 1-3 and Sh.260,000 for year 4-6.
6. Variable cash operating expenses are 40% of sales in year 1, 39% of sales in year 2 and 38% of sales in year 3 - 6.
7. The corporate tax rate is 30%. If taxable income on the project is negative in any year, the loss will offset gains elsewhere in the corporation, resulting in a tax savings.
8. Fixed capital investment will be sold for Sh.300,000 when the project is complete and recapture its cumulative investment in networking capital. Income taxes will be paid on any gains on disposal.
9. The project required rate of return is 12%.

Required:

Determine the suitability of the project using the Net Present Value (NPV) method. (8 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Explain **THREE** factors that influence the dividend policy of a firm. (6 marks)

(b) Outline **FIVE** factors that influence the price of a listed company's share. (5 marks)

(c) The following are the summary statement of profit and loss and statement of financial position for Miranda Ltd. for the year ended 31 October 2022.

Summary Statement of profit and loss

	Sh."000"
Sales (150,000 units)	15,000
Variables costs	(13,500)
Fixed costs	(600)
Profit	900

Statement of financial position

	Sh."000"	Sh."000"
Non-current assets		22,500
Current assets:		
Trade receivables	3,000	
Inventory	1,200	
Bank	360	
Trade payables	(900)	3,660
		26,160
Financed by:		
Equity capital		15,000
12% long- term debt		3,840
6% preference share capital		7,320
		26,160

Additional information:

1. Return on investment (ROI) is 4.8%.
2. All sales are on credit and the company operates a very strict credit control system.
3. A suggestion has been made that a relaxation of credit policy would increase sales by 40%, if the company were to introduce a 2% discount (at present no discount is given) on accounts paid within 10 days.
4. It is envisioned that 70% of the customers would take advantage of the discount and the average collection period of the remainder would be half of what it is at present.
5. Bad debts would remain at 2% of firm's credit sales.
6. Investors required rate of return is 10%.

Assume 360 days in a year.

Required:

(i) The current average collection period. (1 mark)

(ii) The new level of profits after change in credit policy. (6 marks)

(iii) Explain the effect of the new level of investment in account receivable. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) (i) Explain the term "crowdfunding". (2 marks)

(ii) Explain **TWO** benefits of digital finance as part of financial inclusion. (2 marks)

(b) Discuss **THREE** activities that are prohibited under Islamic Finance. (6 marks)

(c) Kanga Ltd. expects earnings before interest and tax (EBIT) of Sh.7,500,000 in the current financial year. The company pays interest of 8% per annum on a long term loan of Sh.25,000,000.

The company has 1,200,000 ordinary shares and the corporate tax rate is 30%. The finance manager is currently examining two options:

Option I: A case where earnings before interest and tax (EBIT) is 20% more than expected.

Option II: A case where earnings before interest and tax (EBIT) is 20% less than expected.

Required:

(i) Determine the earnings per share (EPS) under option I and option II and where there is no change in the expected earnings before interest and tax (EBIT). (6 marks)

(ii) Degree of financial gearing for option I and option II. (4 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

TUESDAY: 2 August 2022. Afternoon paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Highlight four costs of issuing shares in the securities exchange in your country. (4 marks)

(b) Dima Ltd. has developed a new product and is considering whether to put it into production. The following information is available:

1. Development costs will be Sh.4.8 million.
2. Production will require purchase of new machinery at a cost of Sh.2.4 million payable immediately. The machinery has a production life of four years and a production capacity of 30,000 units per annum.
3. Production costs per unit: Sh.
   - Variable material cost 8.00
   - Variable labour cost 12.00
   - Variable overheads 12.00

   Fixed production costs including straight line depreciation on plant and machinery will amount to Sh.200,000 per annum.
4. Selling price is Sh.80.00 per unit. Demand is projected at 25,000 units per annum.
5. The retail price index is expected to increase at a rate of 5% per annum over the period and selling price will increase at the same rate. Annual inflation rates on production costs are as follows:

	(%)
Variable material cost	4
Variable labour cost	10
Variable overheads	4
Fixed costs	5

6. The weighted average cost of capital (WACC) in nominal terms is 15%.

Required:
Advise the firm whether to undertake the production using the net present value (NPV) approach. (8 marks)

(c) The following information relates to the capital structure of Tamu Caterers Limited for the year ended 31 December 2021:

Capital source	Current market value Sh."000"
Corporate bond	11,927
Ordinary shares	26,170
Preference shares	7,203

Additional information:

1. The corporate bond has a Sh.1,000 face value, pays interest at a rate of 11% annually and will mature in 10 years time. The bond is currently trading at Sh.1,125 at the securities market and its yield-to-maturity is 9.05%.
2. The ordinary shares paid a dividend of Sh.1.80 last year and each share is selling at Sh.27.50 at the securities market. The firm's dividend on ordinary shares is expected to grow at a rate of 7% per annum to perpetuity.
3. The firm's preference shares pays a 9% dividend on a Sh.100 par value.
4. The corporation tax rate is 30%.

Required:

(i) The weighted average cost of capital (WACC) for the firm. (6 marks)

(ii) Explain two factors that will determine the cost of capital for Tamu Caterers Limited. (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) Joshua Makau is approaching retirement next year and is expecting a lumpsum pension payment amounting to Sh.20 million.

Required:

Recommend four investment products available in the financial market that he should consider to enable him achieve financial freedom. (4 marks)

(b) Distinguish between the following terms as used in finance:

(i) "Agency cost" and "agency problem". (2 marks)

(ii) "Intrinsic value" and "market value". (2 marks)

(iii) "Liberal credit policy" and "conservative credit policy". (2 marks)

(c) Horizon Construction Limited wishes to increase the number of its branches in the country. The board of directors of the company has decided to finance the expansion programme by raising funds from the existing shareholders through a one for four rights issue.

The published income statement of the company for the year ended 31 December 2021 had the following information:

	Sh."000"
Turnover	250,000
Profit before interest and tax	9,000
Interest	(500)
Profit before tax	8,500
Corporation tax	(2,550)
Profit after tax	5,950
Ordinary dividend	(2,950)
Retained profit for the year	3,000

The share capital of the company comprises of 10 million ordinary shares which have a par-value of Sh.10 per share.

The shares of the company are currently being traded on the securities exchange with a price-earnings (P/E) ratio of 20 times.

The firm's board of directors have decided to issue the new shares at a 25% discount on the current market price.

Required:

(i) The theoretical ex-right price of an ordinary share of the company. (2 marks)

(ii) The theoretical value of each right. (1 mark)

Assuming an investor held 5,000 ordinary shares of the company before the rights issue announcement and Sh.15,000 in his savings account. Calculate the following options and identify the best option to the investor if he:

(iii) Exercises all his rights. (3 marks)

(iv) Sells all his rights. (2 marks)

(v) Ignores the rights issue. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) Examine four shortcomings of the percentage of sales method of forecasting. (4 marks)

(b) Discuss three causes of conflict between shareholders and managers in relation to agency theory. (6 marks)

(c) Explain four sources of finance as used in Islamic Financing. (4 marks)

(d) Explain the following dividend theories:

(i) Bird-in-hand theory. (2 marks)

(ii) Clientele effect theory. (2 marks)

(iii) Information signaling theory. (2 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Cryptocurrency is a digital asset designed to work as a medium of exchange that uses strong cryptograph to secure financial transactions, control the creation of additional units and verity the transfer of assets.

Required:

In light of the above statement, examine four limitations of cryptocurrency. (8 marks)

(b) The following information relates to inventory relationship of QZ Ltd.:

1. Annual purchases of Sh.2,160,000.
2. Purchase price per unit is Sh.60.
3. Carrying cost is 15% of the purchase price per unit.
4. Cost per order placed is Sh.240.
5. Desired stock levels is 300 units. This stock level was in hand initially.
6. Lead time is 7 days.

Assume a 365-day year.

Required:

(i) The economic order quantity (EOQ) for the company. (3 marks)

(ii) The optimal number of orders to be placed in a year. (1 mark)

(iii) The re-order level. (2 marks)

(iv) Assuming that for any orders of at least 2,000 units, the firm will get 5% discount on the purchase price.

Analyse whether the company should take advantage of the discount or not. (4 marks)

(c) Digital Ltd. has some computer industrial plant which it intends to replace four years from today. The company's director estimates that the cost of the plant to the company at that time will be Sh.30 million. To finance the operations, the Finance Director has decided to set up a fund with Golden Bank Ltd. Golden Bank Ltd. has assured the Finance Director that if he opts for this option, the rate of interest will be fixed at 8% per annum. The Finance Director intends to set aside a constant amount from his annual budgets to finance the plant. The rate of interest will be compounded semi-annually.

Required:

The amount that the Finance Director should deposit with Golden Bank Ltd. every year to achieve his objective. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Hamsa Manufacturing Ltd. is considering two alternative investment proposals. The first proposal requires a major renovation of the company's manufacturing facility. The second proposal involves replacing a few obsolete items of equipment in the manufacturing facility. The company is only able to select one of the two proposals.

The cash flows associated with each proposal are shown below:

Year	Proposal I (Renovation) Sh.“000”	Proposal II (replacement of some items) Sh.“000”
0	–9,000	–1,000
1	3,500	600
2	3,000	500
3	3,000	400
4	2,800	300
5	2,500	200

The firm discounts cash flows at the rate of 15%.

Required:

(i) Rank the two investment proposals using the net present value (NPV) approach. (4 marks)

(ii) Rank the two investment proposals using the internal rate of return (IRR) approach. (4 marks)

(iii) Compare the rankings under the NPV and IRR approaches and comment on any differences. (3 marks)

(b) A financial expert has provided you with the following data regarding returns on Mebco Ltd.'s shares for the years 2017 – 2021:

Year	Return on Mebco Ltd.'s shares (%)
2017	18
2018	16
2019	10
2020	6
2021	8

Required:

The risk in Mebco Ltd.'s shares return as measured by the standard deviation. (4 marks)

(c) Koki Ltd. recently paid a dividend of Sh.2.50 per share. The dividend is expected to grow at a rate of 15% per annum for the first three years, then at a rate of 10% per annum for the next 2 years after which the dividend will grow at a rate of 5% per annum to perpetuity. The required rate of return for the ordinary share is 12%.

Required:

The intrinsic value of the ordinary share of Koki Ltd. (5 marks)

(Total: 20 marks)

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CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

MONDAY: 4 April 2022. Afternoon paper. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) Describe four ways of encouraging managers to achieve stakeholders' objectives. (4 marks)

(b) State five arguments against Modigliani and Miller's (MM's) view that dividend policy is irrelevant as a means of affecting shareholders' wealth. (5 marks)

(c) Explain three forms of market information efficiency as stipulated by Eugene Fama's efficient market hypothesis (EMH). (6 marks)

(d) You are on attachment in an investment firm and the following information regarding investments has been provided to you by a company whose earnings per share (EPS) in the current financial year was Sh.8. The company adopts a 60% payout ratio as its dividend policy.

The company is considering two investment options as follows:

Option 1:
The firm has an investment opportunity which, if undertaken, the growth rate in dividends will be 10% per annum for the next 3 years. The growth rate will fall to 8% per annum for the next 2 years after the first 3 years and then stabilise at 6% per annum thereafter.

Option2:
The firm can continue with the current investments and the growth in dividends will continue at the rate of 10% per annum in perpetuity.

Required:
Assuming the required rate of return is 18%, advise the company on the option to take. (5 marks)
(Total: 20 marks)

QUESTION TWO

(a) James Chege intends to accumulate Sh.10,000,000 in his bank account 15 years from now.

Required:
The amount he should deposit now assuming that the bank is offering a 5% interest rate per annum compounded semi-annually. (4 marks)

(b) The following information relates to Triplex Ltd:

1. The company has annual sales revenue of Sh.6,000,000 and all sales are on 30 days credit, although customers on average take 10 days more than the recommended 30 days to pay.
2. Contribution represents 60% of sales and the company currently has no bad debts. Accounts receivable are financed by an overdraft at an annual interest rate of 7%.
3. Triplex Ltd. plans to offer an early settlements discount of 1.5% for payment within 15 days and to extend the maximum credit offered to 60 days.
4. The company expects that these changes will increase annual credit sales by 5% while also leading to additional incremental costs equal to 0.5% of sales revenue.
5. The discount is expected to be taken by 30% of customers, while the remaining customers would take an average of 60 days to pay.

Required:
Evaluate whether the proposed changes in credit policy will increase the profitability of Triplex Ltd. (8 marks)

(c) Tuli Ltd. intends to invest in one of two machines; A or B.

The following data is available:

Year	Machine A Cash inflows "Sh.000"	Machine B Cash inflows "Sh.000"
0	(30,000)	(30,000)
1	8,400	8,400
2	9,600	9,000
3	14,000	8,000
4	16,000	10,000
5	4,000	20,000

Additional information:

1. Both machines have a useful life of 5 years.
2. Depreciation is on a straight line basis.
3. The corporate tax rate is 30%.

Required:

Using pay back period as the criterion for project selection, advise the management of Tuli Ltd. on which machine to invest in. (8 marks)

(Total: 20 marks)

QUESTION THREE

(a) (i) Explain the term "cross border listing". (2 marks)

(ii) Explain four benefits that would accrue to a firm that undertakes cross border listing of its shares. (4 marks)

(b) Outline four reasons behind investors' preference for current income as opposed to future income. (4 marks)

(c) The following financial information relates to Panda Ltd.:

Statement of financial position extract as at 31 December 2021

	Sh."000"	Sh."000"
Equity:		
Ordinary shares (each Sh.5 par value)	16,000	
Reserves	72,000	88,000
Long term liabilities:		
4% preference shares (each Sh.10 par value)	12,000	
7%, 6 year redeemable bonds	12,000	
Long term bank loan	4,000	8,000
		116,000

Additional information:

1. The ordinary shares of Panda Ltd. have an ex-dividend market value of Sh.47 per share and an ordinary dividend of Sh.3.63 per share has just been paid.

   Historic dividend payments have been as follows:

Year	2018	2019	2020	2021
Dividend per share (Sh.)	3.09	3.22	3.36	3.50

2. The preference shares of Panda Ltd. are not redeemable and have an ex-dividend market value of Sh.4 per share.
3. The 7% bonds are redeemable at a 5% premium to their nominal value of Sh.100 per bond and have an ex-interest market value of Sh.104.50 per bond.
4. The bank loan has a variable interest rate that has averaged 4% per year in recent years.
5. The corporate tax rate applicable to Panda Ltd. is 30% per year.

Required:

The market value weighted average cost of capital (WACC) of Panda Ltd. (10 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Explain four methods that a company could use to issue ordinary shares. (4 marks)

(b) Highlight five functions of the Central Depository System (CDS). (5 marks)

(c) Fredrick Onyango, a prospective investor, is considering buying shares of Company A and Company B which are currently selling at Sh.40 and Sh.50 respectively at the securities exchange. He wishes to invest Sh.1,000,000 in both companies' shares in the ratio of 6:4 for share A and share B respectively.

The forecasted end of year market prices and the probabilities of their occurrence in different economic conditions are given as follows:

Economic condition	Probability	End of year market price (Sh.) Share A	Share B
Best	0.40	50	60
Fair	0.30	42	50
Poor	0.30	35	40

Required:

(i) Expected rate of return for each investment. (3 marks)

(ii) Portfolio expected return. (2 marks)

(iii) Assuming that the returns of share A and share B are perfectly positively correlated, compute the portfolio risk. (6 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Big data finance refers to large diverse (structured and unstructured) and complex sets of data that can be used to provide solutions to long standing business challenges for financial services and banking companies around the world.

Required:

In relation to the above statement, discuss two big data challenges facing the banking and finance industry. (4 marks)

(b) Explain two differences between "conventional finance" and "islamic finance". (4 marks)

(c) The following information relates to Jolop Ltd. for the financial year ended 31 December 2021:

Jolop Ltd.
Statement of comprehensive income for the year ended 31 December 2021

	Sh."000"	Sh."000"
Sales:	200,000	
Less: Sales returns	5,000	195,000
Cost of sales:		
Opening stock	3,000	
Purchases	127,000	
Closing stock	(5,000)	(125,000)
Gross profit		70,000
Other income (loss):		
Loss on sale of plant		(5,000)
Dividend received		10,000
Total revenue		75,000
Less expenses:		
Administrative expenses	15,000	
Distribution expenses	20,000	(35,000)
Net income/profit		40,000

Jolop Ltd.
Statement of financial position as at 31 December 2021

Assets:	**Sh."000"**
Non-current assets:	
Land	150,000
Building	200,000
Plant and equipment	200,000
Total non-current assets	550,000
Current assets:	
Inventory	80,000
Accounts receivable	50,000
Bank balances	20,000
Total current assets	150,000
Total assets	700,000
Equity and liabilities:	
Equity:	
Equity share capital (50 million shares of Sh.10 each)	500,000
General reserve	50,000
Retained earnings	70,000
Total equity	620,000
Current liabilities:	
Accounts payable	80,000
Total equity and liabilities	700,000

Required:
Compute and interpret the following for Jolop Ltd.:

(i) Operating profit ratio. (2 marks)

(ii) Net profit to capital employed ratio. (2 marks)

(iii) Stock turnover ratio. (2 marks)

(iv) Debt collection period. (2 marks)

(v) Gross profit ratio. (2 marks)

(vi) Quick/acid test ratio. (2 marks)

(Total: 20 marks)

Present Value Interest factor of 1 Received at the End of n Periods at r Percent:

$PVIF_{r,n} = 1 / (1+r)^n = (1+r)^{-n}$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2693
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541	0.0320	0.0281	0.0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451	0.0258	0.0225	0.0116
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376	0.0208	0.0180	0.0089
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313	0.0168	0.0144	0.0068
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0088	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151	0.0071	0.0059	0.0024
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126	0.0057	0.0047	0.0018
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0016	0.0012	*
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0005	*	*
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014	*	*	*
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.0026	0.0007	*	*	*
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	*	*	*	*

Present Value Interest factors for Annuity of 1 Discounted at r Percent for n Periods:

$PVIFA_{r,n} = [1 - 1/(1+r)^n] / r$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4.7296	4.0333	3.8874	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196	6.7291	6.3729	6.0472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7016	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.8393	7.3658	6.9380	6.5504	6.1982	5.8775	4.8435	4.0967	3.9424	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0751	7.5620	7.1016	6.6870	6.3125	5.9731	4.8913	4.1212	3.9631	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.4424	8.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	8.3481	7.7843	7.2829	6.8351	6.4338	6.0726	4.9371	4.1428	3.9811	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.6442	8.8552	8.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1644	3.9984	3.3330
36	30.108	25.489	21.832	18.908	16.547	14.621	13.035	11.717	10.612	9.6765	8.8786	8.1924	7.5979	7.0790	6.6231	6.2201	4.9929	4.1649	3.9987	3.3331
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.9511	8.2438	7.6344	7.1050	6.6418	6.2335	4.9966	4.1659	3.9995	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	9.0417	8.3045	7.6752	7.1327	6.6605	6.2463	4.9995	4.1666	3.9999	3.3333

kasneb

CPA INTERMEDIATE LEVEL

FINANCIAL MANAGEMENT

WEDNESDAY: 15 December 2021. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Describe four possible sources of conflict of interest between shareholders and bondholders. (4 marks)

(b) Securities exchanges across the world play a critical role in the economic development of countries.

In light of the above statement, summarise six roles of the Securities Exchange in the economic development of your country. (6 marks)

(c) Outline four characteristics of ordinary share capital as a source of business finance. (4 marks)

(d) The following data was extracted from the financial records of Faraja Ltd:

Earnings before interest and tax (EBIT)	Sh.400,000,000
Dividend payout ratio	40%
Number of outstanding ordinary shares	100,000,000
Equity capitalisation rate	15%
Return on investment (ROI)	12%
Corporate tax rate	30%

Required:
The value of Faraja Ltd.'s ordinary share using the Gordon model. (6 marks)
(Total: 20 marks)

QUESTION TWO

(a) Highlight two factors that are likely to affect the success of a rights issue. (2 marks)

(b) QRS Limited is planning to expand its production capacity as per its marketing strategy as a result of access to new markets. The company requires additional capital of Sh.95,000,000 which it intends to raise through a rights issue. The company's financial year ends on 30 June.

Additional information:

1. The company's pre-tax profits for the year ended 30 June 2021 was Sh.177,500,000. This represents a 30% increase over the profits of the previous year.

2. The current market price per share is Sh.12.

3. The rights issue will comprise one share for every four shares held at a rights issue price of Sh.8 per share.

4. The dividend per share for the year ended 30 June 2021 was Sh.0.70.
The company expects to pay a dividend per share of Sh.0.90 for the year ending 30 June 2022.

5. Corporate tax rate is 30%.

Required:

(i) The existing number of ordinary shares before the rights issue. (1 mark)

(ii) The earnings per share (EPS) and price-earnings (P/E) ratio for the year ended 30 June 2021. (4 marks)

(iii) The ex-rights price per share. (3 marks)

(c) The following data shows the returns of two stocks, A and B and their respective probabilities of occurrence:

Probability	Returns of stock A (%)	Returns of stock B (%)
0.30	10	8
0.30	7	12
0.40	13	7

Required:

(i) The expected returns of stock A and stock B. (2 marks)

(ii) The standard deviation of the returns of stock A and stock B. (3 marks)

(iii) Suppose that a portfolio is created composed of 70% of stock A and 30% of stock B. Determine this portfolio's risk in terms of portfolio standard deviation. (5 marks)

(Total: 20 marks)

QUESTION THREE

(a) Mavazi Ltd. is a firm that operates in the textile industry. Over the last 5 years, the firm has experienced stiff competition that has significantly reduced its turnover. In order to remain profitable, the firm's management is considering diversifying its operations. This activity will require additional financing of Sh.50 million.

The firm's existing capital structure is given as follows:

	Sh. "000"
Ordinary share capital (Sh.20 par value)	60,000
Reserves	10,000
11% Debentures (Sh.100 par value)	20,000
13% Preference share capital (Sh.15 par value)	10,000
	100,000

Additional information:

1. The firm's existing capital structure is considered to be optimal.
2. The firm expects to raise Sh.5 million from internal sources in order to finance this diversification activity. However, new ordinary shares will be issued at Sh.32 per share and incur a floatation cost of Sh.2 per share.
3. The most recent dividend paid by the company was Sh.2.5 per share which is expected to grow at a constant rate of 5% per annum in perpetuity.
4. New 12% redeemable debentures will be issued at Sh.110 each. A floatation cost of Sh.15 per unit will be incurred. The par value of each unit is Sh.100 and the debentures will have a maturity period of 10 years.
5. New 14% irredeemable preference shares will be issued at Sh.90 per share. The par value of each irredeemable preference share is Sh.100.
6. The corporation tax rate applicable is 30%.

Required:

(i) The cost of ordinary share capital. (2 marks)

(ii) The cost of retained profit. (2 marks)

(iii) After tax cost of new 12% debenture capital. (4 marks)

(iv) Cost of new 14% preference share capital. (2 marks)

(v) Weighted marginal cost of capital (WMCC). (4 marks)

(b) Siphony Ltd. borrowed Sh.15,000,000 from Baraka Bank at an annual interest rate of 16% repayable in four equal annual instalments at the end of each year.

Required:

Prepare a loan amortisation schedule for the company. (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a) (i) Explain the term "personal financial management". (2 marks)

(ii) Examine four benefits of managing personal finance efficiently. (4 marks)

(b) In relation to Islamic Finance, explain the following terms:

(i) Sukuk. (2 marks)

(ii) Gharar. (2 marks)

(iii) Musharakah. (2 marks)

(c) Arctic Developers Ltd. deals in the construction and sale of residential homes. The company is evaluating different forms of paying dividends to its shareholders.

In relation to the above statement, advise the company on four forms of paying dividends that it could adopt. (4 marks)

(d) The following information relates to Kabaka Ltd. for the year ended 31 March 2021:

	Sh."000"
Profit after tax	12,000
10% Debenture	12,000
Ordinary share capital (Sh.20 par value)	80,000

Additional information:

1. The market price per share is Sh.72.
2. The corporate tax rate is 30%.

Required:

Calculate the following ratios:

(i) Times interest earned ratio. (2 marks)

(ii) Price earnings ratio. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Bob Ltd. is contemplating replacing an existing machine which was purchased 5 years ago at a cost of Sh.825,000. The machine was expected to have a useful life of 10 years and an estimated salvage value of Sh.40,000 at the end of the 10th year. However, if replaced the existing machine can be sold in the market today at Sh.300,000.

The new machine will have an initial cost of Sh.1,200,000 and will have a useful life of 5 years. As a result of increased efficiency that will arise due to replacement of the existing machine, the firm will save Sh.168,000 per annum in production costs throughout the new machine's life. In addition, there will be annual savings in reduction of wastages estimated at Sh.80,000.

The salvage value of the new machine is estimated at Sh.100,000 at the end of its useful life.

Additional information:

1. The firm provides for depreciation on a straight-line basis.
2. The cost of capital is 14%.
3. The corporation tax rate applicable is 30%.

Required:

(i) Using the net present value (NPV) approach, advise the firm on the replacement decision. (8 marks)

(ii) State any two assumptions you made in your calculations in (a) (i) above. (2 marks)

(b) Analyse three motives of holding cash. (6 marks)

(c) Jasmine Limited generates Sh.100,000 per month excess cash which it intends to invest in short-term securities. The interest rate it can expect to earn on its investment is 10% per annum. The transaction costs associated with each separate investment of funds is constant at Sh.500.

Required:

(i) The optimal amount of cash to be invested in each transaction. (1 mark)

(ii) The number of transactions per annum. (1 mark)

(iii) The total cost of making the transactions in (c) (ii) above. (1 mark)

(iv) The opportunity cost of holding cash per annum. (1 mark)

(Total: 20 marks)

....

Present Value Interest factor of 1 Received at the End of *n* Periods at r Percent:

$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2693
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541	0.0320	0.0281	0.0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451	0.0258	0.0225	0.0116
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376	0.0208	0.0180	0.0089
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313	0.0168	0.0144	0.0068
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0088	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151	0.0071	0.0059	0.0024
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126	0.0057	0.0047	0.0018
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0016	0.0012	*
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0005	*	*
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014	*	*	*
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.0026	0.0007	*	*	*
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	*	*	*	*

Present Value Interest factors for Annuity of 1 Discounted at r Percent for *n* Periods:

$PVIFA_{r,n} = [1 - 1/(1+r)^n]/r$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5765	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4.7296	4.0333	3.8874	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196	6.7291	6.3729	6.0472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7016	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.8393	7.3658	6.9380	6.5504	6.1982	5.8775	4.8435	4.0967	3.9424	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0751	7.5620	7.1016	6.6870	6.3125	5.9731	4.8913	4.1212	3.9631	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.4424	8.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	8.3481	7.7843	7.2829	6.8351	6.4338	6.0726	4.9371	4.1428	3.9811	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.6442	8.8552	8.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1644	3.9984	3.3330
36	30.108	25.489	21.832	18.908	16.547	14.621	13.035	11.717	10.612	9.6765	8.8786	8.1924	7.5979	7.0790	6.6231	6.2201	4.9929	4.1649	3.9987	3.3331
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.9511	8.2438	7.6344	7.1050	6.6418	6.2335	4.9966	4.1659	3.9995	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	9.0417	8.3045	7.6752	7.1327	6.6605	6.2463	4.9995	4.1666	3.9999	3.3333

CPA INTERMEDIATE LEVEL

PILOT PAPER

FINANCIAL MANAGEMENT

December 2021. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Summarise five methods of issuing ordinary shares. (5 marks)

(b) Mountain Mall (MM) Ltd. is considering a project with the following cash flows:

End year	Cash flows (Sh.)
0	-40,000
1	100,000
2	-20,000

Additional information:

1. The firm's cost of capital is 15%.
2. Corporation tax rate is 30%.

Required:

(i) Compute the two internal rates of return (IRR) associated with these cash flows. (4 marks)

(ii) If the firm's cost of capital falls between the two IRR values calculated in b(i) above, advice the firm on whether to accept or reject the project. (3 marks)

(c) KUDS Ltd.'s current earnings per share (EPS) is Sh.24. The firm adopts a 40% dividend payment ratio as its dividend policy. The firm has in issue 10,000,000 ordinary shares.

The existing capital structure of the firm is given as follows:

	Sh. "000"
Ordinary share capital	1,600, 000
Retained profits	600,000
Share premium	200,000
12% debt	800, 000
	3,200,000

Additional information:

1. The expected rate of return on market portfolio is 15%.
2. The risk free rate of return is 10%.
3. The firm's equity beta coefficient is 1.4.

Required:

(i) Using the capital asset pricing model (CAPM), determine the minimum required return on the company's equity shares. (2 marks)

(ii) Using the dividend growth model, compute the current value of each equity share. (6 marks)

(Total: 20 marks)

QUESTION TWO

(a) Describe four main principles of Islamic finance. (4 marks)

(b) Economics Industries Ltd. is an all equity financed company with a cost of capital of 18.75%. The company is evaluating five annual capital investment projects with the following extended returns and risks as measured by the Beta factor.

Project	Initial outlay (Sh.)	Annual cash flows (Sh.)	Beta coefficient
A	300,000	330,000	0.3
B	300,000	340,000	0.5
C	400,000	480,000	1.0
D	500,000	590,000	1.5
E	500,000	600,000	2.0

Additional information:

1. The risk free rate of return is 7.7%.
2. The market rate of return is 16%.

Required:

(i) The beta factor of Economic Industries Ltd. (1 mark)

(ii) Advise the management of Economics Industries Ltd on the project to undertake. (5 marks)

(iii) Compute the beta factor of the accepted project (s) based on results in b (ii) above. (2 marks)

(c) Examine three key differences between behavioral finance and traditional finance. (6 marks)

(d) Explain the meaning of the term “mutual fund”. (2 marks)

(Total: 20 marks)

QUESTION THREE

Office Point Ltd. is considering two alternative proposals for financing a major expansion scheme requiring an investment of Sh.100 million. The first is to raise the required funds through a public issue of ordinary shares at the current market price per share of Sh.2.00.

The other proposal is to raise the finance by way of a term loan at an interest rate of 4% over the base rate of 5% per annum.

The terms and conditions under which the company's existing loan capital has been raised include the following special covenants:

1. The company's debt ratio should not exceed 40%.
2. A times interest earned ration of not less than 10 times should be maintained.

Office Point Ltd’s earnings before interest and tax (EBIT) during the financial year ended 31 December 2020 was Sh.150 million, and the company's latest financial statement reveals the following information:

	Sh. “million”
Total Assets	425
Debt 8% loan stock	75
Common stock (200m ordinary shares)	100
Retained earnings	250
Total liabilities & equity	425

Additional information:

1. Investment of the additional capital of Sh.100 million is expected to result in the earnings before interest and tax (EBIT) for 2021 being 30% higher than the figure for 2020.
2. Interest at the rate of 8% would continue to be paid on the existing loan capital of Sh.75 million.
3. The company would maintain its existing policy of paying a dividend of Sh.0.25 per share.
4. Corporation tax rate is 30%.

Required:

(i) Assess the impact of the two alternative financing proposals on the company's earnings per share (EPS). (5 marks)

(ii) Calculate the EBIT - EPS indifference point. (3 marks)

(iii) Calculate Office Point Ltd.'s debt ratio and times interest earned ratio for 2020, and assess the impact of each of the two alternative financing proposals on these ratios in the company's financial statement for year 2021. (6 marks)

(iv) Discuss six key factors that are considered by businesses when deciding between debt and equity finance. (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Jade Smith will deposit Sh.500,000 in his savings account on 31 December 2021. He will deposit an additional Sh.200,000 at the end of each subsequent year in that account, the sum deposited is expected to earn interest at the rate of 8% per annum, compounded annually.

Required:

(i) Determine the cumulative amount that is expected to be in his account at the end of year 2025. (6 marks)

(ii) The rate of return expected to be earned over the projected period. (2 marks)

(b) Briefly explain three factors that might influence working capital requirements of a firm. (6 marks)

(c) Merchant Sport Club uses 100 replacement lamps for its street lights. Each lamp costs the Club Sh.8. Ordering costs are estimated at Sh.27 per order. Holding costs are at 25% of the cost of each lamp. The Club currently orders according to the EOQ basis.

The supplier has now offered the club a 2% discount if the Club will buy 600 lamps at a time.

Required:

Using suitable calculations, advise the club on whether to accept the discount offer or not. (6 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Utawala Ltd. plans to buy shares of Mcop Ltd. that are currently selling at Sh.20 each at the National Securities Exchange.

The forecasted price per share and probability of their occurrence on different states of nature are as follows:

State of nature	Probability	Forecasted Share Price (Sh.)
Excellent	0.30	25
Normal	0.20	22
Poor	0.35	21
Very poor	0.15	19

Required:

(i) Expected rate of return of the company's shares. (3 marks)

(ii) The standard deviation of returns. (4 marks)

(b) Explain four conflicts that could arise in the course of achieving a firm's objectives. (8 marks)

(c) Enumerate five functions of the Central Bank in your country. (5 marks)

(Total: 20 marks)

…………………………………………………………………………………..

kasneb

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 1 September 2021. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) The concept of time value of money lays a solid foundation upon which other finance concepts are developed.

In light of the above statement, explain three applications of the concept of time value of money. (6 marks)

(b) Highlight four advantages of the wealth maximisation objective of a firm. (4 marks)

(c) Belta Limited issued a 16% corporate bond with a par value of Sh.1,000. The bond will either be redeemed at 20% premium after 5 years or convertible into equity at a conversion rate of Sh.100 per 2 ordinary shares. Each ordinary share is currently trading at the Securities Exchange for Sh.50. It is expected that the share price will increase at a constant rate of 5% each year.

The minimum required rate of return by investors is 12%.

Required:

(i) The current value of the redeemable bond. (3 marks)

(ii) The current value of the convertible bond. (3 marks)

(iii) Propose four advantages that would accrue to Belta Limited by using commercial papers as a source of finance. (4 marks)

(Total: 20 marks)

QUESTION TWO

(a) Maridadi Ltd. is a firm that operates in the textile industry. The firm's operating profit, that is, earnings before interest and tax (EBIT) over the next five years are forecasted as follows:

Year	**2021**	**2022**	**2023**	**2024**	**2025**
Operating profit (EBIT) Sh. "000"	10,000	12,000	15,000	16,000	18,000

Additional information:

1. The firm expects to incur a fixed financing cost of Sh.20,000,000 in the year 2021. This is expected to rise at a constant rate of 10% each year.
2. The firm's acceptable investments to be financed each year are given as follows:

Year	**2021**	**2022**	**2023**	**2024**	**2025**
Acceptable projects Sh. "000"	3,000	4,500	5,000	6,500	7,000

3. Corporation tax rate is 30%.
4. The number of issued ordinary shares are 10,000,000. These are expected to remain constant each year.

Required:

(i) Dividend per share (DPS) payable in each year assuming the firm adopts 40% payout ratio as its dividend policy. (4 marks)

(ii) Dividend per share (DPS) payable in each year assuming the firm adopts a residual dividend policy. (4 marks)

(b) Jahazi Limited is considering investing in the purchase of a machine for its manufacturing process at a cost of Sh.5,000,000. Installation cost of the machine is expected to be Sh.500,000. The machine is expected to have a useful life of five years, at the end of which, salvage value is estimated at Sh.800,000. This investment shall lead to increase in sales. In order to support increased sales, the firm requires an extra investment in working capital at the start of the machine's useful life. Inventory balances will increase by Sh.1,200,000, debtors balances will rise by Sh.1,500,000 and creditors balance will increase by Sh.1,700,000. The additional investment in working capital will be recovered at the end of the machine's useful life.

The quantity of the product to be manufactured and sold in each year are estimated as follows:

Year	Quantity (Units)
1	20,000
2	25,000
3	30,000
4	35,000
5	40,000

Additional information:

1. The unit selling price and unit variable costs incurred are estimated at Sh.45 and Sh.15 respectively. These are expected to remain constant each year.
2. The firm's estimated fixed operating costs excluding depreciation are Sh.100,000 per annum.
3. The machine will require an overhaul at the end of the second year. This overhaul cost will amount to Sh.240,000.
   The overhaul cost will be ammortised separately on a straight line basis over the remaining useful life of the asset.
4. The firm provides for depreciation on a reducing balance basis at the rate of 32% per annum.
5. The cost of capital is 13%.
6. The corporation tax rate is 30%.

Required:

Using the net present value (NPV) technique, advise on the suitability or otherwise of the project. (12 marks)

(Total: 20 marks)

QUESTION THREE

(a) An efficient and sound financial system of a country plays an important role in the economic development of that country.

In relation to the above statement, explain five functions of a financial system. (5 marks)

(b) Hakika Ltd. is a newly listed company in the local Securities Exchange. The company has 1 million ordinary shares trading at Sh.49.50 per share. To finance a restructuring exercise, the company requires Sh.7,855,000. To raise the amount, the company intends to issue a one for five rights issue at a subscription price of Sh.39 per share. The finance manager has projected that upon restructuring, the company's annual cash inflows would increase by Sh.965,000.

In the previous financial year, the company paid a dividend of Sh.5 per share. The dividend and the company's earnings are expected to grow by 5% annually upon restructuring.

Required:

(i) The price of the shares after the rights issue but before they start selling ex-rights. (4 marks)

(ii) The theoretical ex-rights price of the shares. (3 marks)

(iii) The theoretical value of the rights when the shares are selling cum-rights. (2 marks)

(c) Theophilus Akumu has a capital of Sh.1,000,000 which she intends to invest in two securities; namely Security A and Security B.

She plans to invest Sh.200,000 in Security A, and Sh.800,000 in Security B.

The returns of the two securities have the following characteristics depending on the state of the economy:

State of the economy	**Probability**	**Returns (%) Security A**	**B**
Recession	0.40	18	24
Stable	0.50	14	22
Expansion	0.10	12	21

Required:

(i) Expected return for the portfolio comprising of Security A and Security B. (3 marks)

(ii) Correlation coefficient between Securities A and B. (3 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Summarise five features of the efficient markets hypothesis. (5 marks)

(b) Examine four challenges of Islamic banking in your country. (4 marks)

(c) Upesi Wholesalers Ltd. deals in sale of foodstuffs to retailers. Owing to economic depression, the firm intends to relax its credit policy to boost productivity and sales.

The firm's current credit policy is "net 30" and the average debt collection period is 45 days.

The current annual credit in amount to Sh.60 million. The firm intends to change to "net 60" where sales are expected to increase by 25%. Credit and debt analysis costs will increase from the current 2% to 2.5% of credit sales. Bad debts will also increase from the current 1.5% to 2% of credit sales, variable costs account for 75% of sales and return on assets is 12%. Assume a 360 day year.

Required:

Advise the company on whether to adopt the new credit policy. (6 marks)

(d) The following financial data relates to Penguine Limited for the year ended 31 December 2020:

Statement of financial position
As at 31 December 2020

Assets:	**Sh. "million"**
Non-current assets	250
Current assets	150
	400
Financed by:	
Debt	140
Equity	260
	400

Statement of profit or loss
For the year ended 31 December 2020

	Sh. "million"
Net sales	650
Cost of sales	(150)
Gross profit	500
Operating expenses	(200)
Operating profit	300
Interest expense	(30)
Profit before tax	270
Corporation tax	(81)
Profit after tax	189

Additional information:
1. The firm's cost of equity is 12%.
2. Corporation tax rate is 30%.
3. Interest rate on debt is 10%.

Required:
Compute the Economic Value Added (EVA) of the company. (5 marks)
(Total: 20 marks)

QUESTION FIVE
(a) Differentiate between the following terms as used in capital budgeting decisions:

(i) "Hard capital" and "Soft capital" (2 marks)

(ii) "Sunk costs" and "Opportunity costs". (2 marks)

(iii) "Independent projects" and "Mutually exclusive projects". (2 marks)

(b) The management of Biashara Ltd. are in the process of determining the optimal capital budget of the company for the year ending 31 December 2021.

The following information is available:
1. The profit after tax for the year ending 31 December 2021 is estimated to be Sh.22,500,000.
2. The retention ratio is 60%.
3. The ordinary shares of the company are currently trading on the securities exchange at Sh.80 per share.
4. Ordinary shareholders expect a dividend of Sh.6 per share for the year ending 31 December 2021.
5. The annual growth rate in dividend is 6% per annum.
6. Floatation costs amounts to Sh.8 per share issued.
7. The company could issue an unlimited number of 11% preference shares at Sh.96 per share. The par value is Sh.100.
8. The company could obtain a bank loan of upto Sh.24,000,000 at a pre-tax interest rate of 10% per annum. Thereafter, an unlimited amount of bonds could be issued under the following terms:
   - Coupon interest rate of 12% per annum.
   - Par value at Sh.1,000 per bond.
   - Discount of Sh.30 per bond.
   - Floatation cost of Sh.20 per bond.
   - Maturity period of ten years.
9. The optimal capital structure of the company comprises 15% debt, 40% preference shares capital and 45% equity.
10. Corporate tax rate is 30%.

Required:
(i) The cost of capital for each source of finance available to Biashara Ltd. (6 marks)

(ii) The break-point(s) in the marginal cost of capital (MCC) schedule with respect to retained earnings and debt. (4 marks)

(iii) The marginal cost of capital (MCC) at each break-point identified in (b) (ii) above. (4 marks)
(Total: 20 marks)

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Present Value Interest factor of 1 Received at the End of n Periods at r Percent:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2693
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541	0.0320	0.0281	0.0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451	0.0258	0.0225	0.0116
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376	0.0208	0.0180	0.0089
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313	0.0168	0.0144	0.0068
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0088	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151	0.0071	0.0059	0.0024
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126	0.0057	0.0047	0.0018
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0016	0.0012	*
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0005	*	*
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014	*	*	*
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.0026	0.0007	*	*	*
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	*	*	*	*

Present Value Interest factors for Annuity of 1 Discounted at r Percent for n Periods:

$$PVIFA_{r,n} = [1 - 1/(1+r)^n]/r$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.9197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4.7296	4.0333	3.8874	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196	6.7291	6.3729	6.0472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7016	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.8393	7.3658	6.9380	6.5504	6.1982	5.8775	4.8435	4.0967	3.9424	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0751	7.5620	7.1016	6.6870	6.3125	5.9731	4.8913	4.1212	3.9631	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.4424	8.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	8.3481	7.7843	7.2829	6.8351	6.4338	6.0726	4.9371	4.1428	3.9811	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.6442	8.8552	8.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1644	3.9984	3.3330
36	30.108	25.489	21.832	18.908	16.547	14.621	13.035	11.717	10.612	9.6765	8.8786	8.1924	7.5979	7.0790	6.6231	6.2201	4.9929	4.1649	3.9987	3.3331
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.9511	8.2438	7.6344	7.1050	6.6418	6.2335	4.9966	4.1659	3.9995	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	9.0417	8.3045	7.6752	7.1327	6.6605	6.2463	4.9995	4.1666	3.9999	3.3333

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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 19 May 2021. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain four categories of capital investment projects. (4 marks)

(b) Nyakati Limited intends to invest in a four-year mini project whose initial outlay is Sh.32,000,000. The project is expected to generate the following cash flows at the end of each year:

Year	1	2	3	4
Cash flows (Sh. "000")	12,000	15,000	9,000	6,000

The cost of capital is 12%.

Ignore taxation.

Required:
Advise the management on whether to undertake the project using the internal rate of return (IRR) method. (4 marks)

(c) (i) Describe four reasons for valuing financial assets. (4 marks)

(ii) Hazi Limited expects to pay a dividend of Sh.5.40 per share in one year's time.

Additional information:
1. The company's dividend payout ratio is 60%.
2. The shareholders' required rate of return on equity is 15%.
3. Dividends have been growing at a constant rate in perpetuity.
4. The company's shares are currently trading at Sh.64.50 per share at the Securities Exchange.

Required:
Advise an investor who holds shares in Hazi Limited whether to buy more shares or to sell the shares. (4 marks)

(d) Propose four factors to consider when choosing between long term loan capital and ordinary share capital as a source of finance. (4 marks)

(Total: 20 marks)

QUESTION TWO

(a) The role of a finance manager in a modern organisation is pervasive in all the activities of any business firm.

In light of the above statement, highlight four roles of a finance manager in an organisation. (4 marks)

(b) Describe four factors that could affect a company's dividend policy. (4 marks)

(c) Examine five roles of the Capital Markets Authority (CMA) or a similar institution in your country. (5 marks)

(d) Eliud Mwaniki is considering investing in Security A and Security B in equal proportions. The following forecasts have been provided:

State	Probability	Returns (%) Security A	Security B
Recession	0.30	12	6
Stable	0.40	15	7.5
Expansion	0.30	10	5

Required:

(i) Expected return for the portfolio. (4 marks)

(ii) Standard deviation for security A. (3 marks)

(Total: 20 marks)

QUESTION THREE

(a) Explain the following concepts in the context of Islamic Finance:

(i) Takaful. (2 marks)

(ii) Riba. (2 marks)

(iii) Mudarabah financing. (2 marks)

(iv) Murabahah financing. (2 marks)

(b) The following are extracts from Riziki Ltd.'s statement of financial position as at 30 March 2021:

Book values	**Sh. "Million"**
Ordinary shares (Sh.50 par value)	9,600
6% preference shares (Sh.100 par value)	7,900
4.8% debenture (Sh.100 par value)	6,400
	23,900

Additional information:

1. The ordinary shares of Riziki Ltd. are currently quoted at Sh.72 per share (cum dividend).
2. The most recently declared dividend was Sh.2 per share and will be paid in a years' time. The dividend growth rate is 5%.
3. The dividend will continue to grow at the rate of 5% into the foreseeable future.
4. The preference shares currently trade at Sh. 80 per share. There is no preference dividend owing at this point in time.
5. The debentures are irredeemable and currently trade at 120% of their nominal value.
6. The corporation tax rate is 30%.

Required:

(i) The cost of capital for each source of finance for Riziki Ltd. (4 marks)

(ii) The weighted average cost of capital (WACC) for Riziki Ltd. (4 marks)

(c) ABC Limited's current annual sales are Sh.1.8 million with a cost of sales of 80% and bad debts average 1% of total sales.

The current debt collection period is one month and the management considers that if credit terms were eased (Option A), the effects would be as follows:

	Present Policy	Option A
Additional sales (%)	-	25%
Average collection period	1 month	2 months
Bad debts (% of sales)	1%	3%

Additional information:
1. The company requires a 20% return on its investments.
2. The cost of sales are 75% variable and 25% fixed.

Required:
Advise the management on whether or not to ease the credit terms. (4 marks)
(Total: 20 marks)

QUESTION FOUR
(a) Outline four factors that could hinder the success of a rights issue. (4 marks)

(b) Alpha Ltd. intends to introduce a new product, branded "Q" into the market. This will require an initial investment in machinery costing Sh.4,800,000. The machinery will be installed at a cost of Sh.200,000 and is estimated to have a useful life of four years and a salvage value of Sh.800,000.

Additional information:
1. Capital allowance will be provided on the machinery on a reducing balance basis.
2. Annual profits from the sale of Product "Q" will amount to Sh.1,920,000 before deducting depreciation on machinery.
3. An investment in working capital amounting to Sh.340,000 will be required on commencement of the project.
4. The firm pays corporation tax at the rate of 30%.
5. Cost of capital is 15% per annum.

Required:
(i) The annual depreciation rate. (3 marks)

(ii) The total initial cash outlay. (2 marks)

(iii) The total terminal cash flows. (2 marks)

(iv) The annual net operating cash flows. (5 marks)

(v) Using the net present value approach, advise the management of this company on the suitability or otherwise of the project. (4 marks)
(Total: 20 marks)

QUESTION FIVE
(a) Discuss four factors that a firm should consider in formulating a working capital policy on the management of trade receivables. (4 marks)

(b) Phoenix Ltd. is considering amendments to its current inventory management policy.

The following information relates to the proposed ordering policy:

1. The current policy is to order 200,000 units when the inventory level falls to 70,000 units.
2. Forecast demand to meet production requirements during the next year is 1,250,000 units.
3. The cost of placing and processing an order is Sh.500, while the cost of holding a unit is Sh.1 per unit per year. Both costs are expected to be constant during the next year.
4. Orders are received two weeks after being placed with the supplier.
5. Assume one year has 50 weeks.

Required:
(i) The cost of the current ordering policy. (3 marks)

(ii) Determine the savings that could be made by using the economic order quantity (EOQ) model. (3 marks)

(c) The following data was extracted from the financial statements of Mbuni Ltd. for the year ended 31 December 2020:

Statement of financial position as at 31 December 2020:

	Sh."000"		Sh."000"
Cash	?	Notes payable	100,000
Accounts receivable	?	Long term debt	?
Plant and equipment	?	Ordinary shares	100,000
		Retained earnings	100,000
Total Assets	?	Total Liabilities	?

Additional information:

• Long term debt to equity ratio	0.5 to 1.0
• Total assets turnover	2.5 times
• Average collection period (Assume 360 days in a year and that all sales are on credit)	18 days
• Inventory turnover	9 times
• Acid test ratio	1 to 1
• Gross profit margin	0.1

Required:
Determine the following:

(i) Long term debt. (1 mark)

(ii) Total liabilities and shareholders' equity. (1 mark)

(iii) Cost of sales. (1 mark)

(iv) Inventory. (1 mark)

(v) Accounts receivable. (1 mark)

(vi) Cash. (1 mark)

(vii) Complete the statement of financial position of Mbuni Ltd. for the year ended 31 December 2020 using the figures obtained in (c) (i) to (c) (vi) above. (2 marks)

(d) Ork Limited has an outstanding Sh.2 million face value bond with a 14% coupon rate and 3 years remaining until maturity.

Interest payments are made semi-annually.

Required:
The value of this bond assuming the nominal annual required rate of return is 12%. (2 marks)

(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1-\frac{1}{(1+r)^t}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

THURSDAY: 26 November 2020. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Islamic banking is grounded on Sharia Law. To earn money, Islamic banks use equity participation system.

Required:
With reference to the above statement:

(i) Explain the term "equity participation system". (2 marks)

(ii) Discuss three principles of Islamic finance. (6 marks)

(iii) Describe two types of financing arrangements that could be adopted under Islamic finance. (4 marks)

(b) In the context of financial markets:

(i) Distinguish between "commodities markets" and "derivatives markets". (4 marks)

(ii) Summarise four functions of financial markets. (4 marks)

(Total: 20 marks)

QUESTION TWO

(a) Jaribu Ltd. has been operating in the country for many years. The directors of the company wish to raise additional capital through a rights issue in order to explore opportunities in the region. The directors have decided to make a one-for-five rights issue at a discount rate of 30% on the current market value. The company's most recent financial statements are presented below:

Income statement for the year ended 31 March 2020

	Sh."million"
Sales	1,400
Net profit before interest and taxation	52
Interest payable	24
Net profit before taxation	28
Corporation taxation	7
Net profit after taxation	21
Ordinary dividends payable	14
Retained profit for the year	7

Capital and reserves as at 31 March 2020

	Sh."million"
Sh.0.25 ordinary shares	60
Revaluation reserves	140
Accumulated profits	320
	520

Additional information:

1. The shares of the company are currently traded at the local Securities Exchange at a price to earnings (P/E) ratio of 16.
2. An investor holding 10,000 ordinary shares in the company has received the information on the forthcoming rights issue but cannot decide whether to take up the rights issue, sell the rights or allow the rights to lapse.

Required:

(i) The theoretical ex-rights price of an ordinary share. (3 marks)

(ii) The price at which the rights are likely to be traded. (1 mark)

(iii) Evaluate each of the three options available to the investor with 10,000 ordinary shares. (6 marks)

(iv) Comment on the wealth of the investor based on each of the options evaluated in (a) (iii) above. (2 marks)

(b) Nderu Suppliers Ltd. is reviewing its working capital commitments for enhanced efficiency.

The following information relating to the period ended 31 March 2020 is provided:

Turnover for the year	Sh.15,000,000
Costs as percentages of sales	**(%)**
Direct materials	30
Direct labour	25
Variable overheads	10
Fixed overheads	15
Selling and distribution	5

Additional information:

1. On average:
   - Account receivables take two and a half months before payment.
   - Raw materials are in inventory for three months.
   - Work in progress represents two months worth of half produced goods.
   - Finished goods represent one month's production.
2. Credit is taken as follows:
   - Direct materials — 2 months
   - Direct labour — 1 week
   - Variable overheads — 1 month
   - Fixed overheads — 1 month
   - Selling and distribution — Half a month
3. Work in progress and finished goods are valued at material, labour and variable expenses cost.
4. Labour force is paid for 50 working weeks a year.

Required:

Assess the working capital requirements for the company. (8 marks)

(Total: 20 marks)

QUESTION THREE

(a) The following information relates to Bawabu Traders:

1. The minimum cash balance is Sh.8,000.
2. The variance of daily cash flows is Sh.4,000,000, equivalent to a standard deviation of Sh.2,000 per day.
3. The transaction cost for buying or selling securities is Sh.50.
4. The interest rate is 0.025 per cent per day.

Required:

Using Miller-Orr Model of managing cash, determine the following:

(i) The spread. (2 marks)

(ii) Upper cash limit. (2 marks)

(iii) Return point. (2 marks)

(iv) Propose a decision rule for cash management to the company based on your calculations in (a) (i) to (a) (iii) above. (2 marks)

(b) The following information was extracted from the books of Domingo General Merchants Ltd.:

Statement of financial position as at 31 December 2019:

	Sh."000"	Sh."000"
Non-current assets		10,115
Investments		821
Current assets	3,658	
Less: Current liabilities	(1,735)	1,923
Total assets		12,859
Financed by:		
Ordinary share capital: 3,000,000 shares each Sh.1		3,000
General reserves		7,125
Shareholders' funds		10,125
7% Bonds		1,300
Corporation taxation		1,434
Total equity and liabilities		12,859

Summary of profits and dividends:

Year ended 31 December	**2015**	**2016**	**2017**	**2018**	**2019**
	Sh."000"	**Sh."000"**	**Sh."000"**	**Sh."000"**	**Sh."000"**
Profit after interest and before tax	1,737	2,090	1,940	1,866	2,179
Less: Tax	(573)	(690)	(640)	(616)	(719)
Profit after interest and tax	1,164	1,400	1,300	1,250	1,460
Less: Dividends	620	680	740	740	810
Retained earnings	544	720	560	510	650

Additional information:

1. The current (1 January 2020) market value of ordinary shares is Sh.3 per share ex div.
2. The bonds are redeemable at par in ten years time.
3. The current market value of the bonds is Sh.77.10 per Sh.100 of nominal value and the annual interest has just been paid on the bonds.
4. There have been no issues or redemptions of ordinary shares or bonds during the past five years.
5. The corporate tax rate is 30%. Assume that there have been no changes in corporate tax rate for the past five years.

Required:

The weighted average cost of capital (WACC) that the company should use as a discount rate when appraising new investment opportunities. (12 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Ulanda Engineering Works Ltd. is contemplating the purchase of a new machine to replace the existing one. The existing machine was purchased two years ago at an installed cost of Sh.500,000. The machine was estimated to have an economic life of 5 years with nil salvage value but a critical analysis of its performance now shows that it is usable for the next five years with a resale value of Sh.100,000. The current disposal value of existing machine is Sh.200,000.

The new machine would cost Sh.600,000 and require Sh.50,000 in installation cost. Since the machine is not locally available, the company plans to import it and will pay import duty and freight charges of Sh.150,000 and Sh.100,000 respectively. The new machine shall require an overhaul at the end of third year which is expected to cost Sh.100,000. The overhaul cost is to be amortised on a straight line basis over the remaining useful life of the machine.

To support the increased business resulting from purchase of the new machine, accounts receivable would increase by Sh.250,000, inventories and accounts payable shall increase by Sh.200,000 and Sh.300,000 respectively.

At the end of five years, the new machine would be sold for Sh.250,000.

The estimated profit before depreciation and taxes over the next five years period for both machines are given as follows:

Year	Existing machine Sh."000"	New machine Sh."000"
1	120	260
2	150	280
3	130	250
4	145	240
5	135	270

Additional information:

1. The corporation tax rate is 30%.
2. The company uses the straight line method of depreciation.
3. The cost of capital is 13%.
4. Capital gains are tax exempt.

Required:

(i) The incremental initial cash outlay. (4 marks)

(ii) The incremental net operating cash flows associated with the proposed machine replacement. (6 marks)

(iii) Should the existing machine be replaced? Justify your answer. (4 marks)

(b) Upendo Ltd. has issued 5,000,000, Sh.20 par value ordinary shares which are presently trading at Sh.25 per share at the Securities Exchange. Upendo Ltd. has plans to issue rights to purchase one new ordinary share at a price of Sh.20 per share for every four shares held.

Required:

(i) The theoretical ex-right price of Upendo Ltd.'s share. (4 marks)

(ii) The theoretical value of a right of Upendo Ltd. before the shares sell ex-right. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Donnat Ltd. has a capital structure that consists of Sh.150 million, 15% debentures and Sh.450 million in ordinary shares of Sh.20 par value.

The company adopts a 100% payout ratio as its dividend policy.

The finance manager of Donnat Ltd. intends to raise an additional Sh.20 million to finance an expansion programme and is considering two alternative financing options:

Option 1: Issue a 12% debenture stock.
Option 2: Issue additional ordinary shares of Sh.20 par value.

The corporation tax rate is 30%.

Required:

Calculate the earnings before interest and tax (EBIT) and earnings per share (EPS) at the point of indifference in firm's earnings under financing option (1) and (2) above. (8 marks)

(b) (i) Walter's model on dividend policy believes in the relevance concept of a dividend. According to this concept, a dividend decision of the company affects its valuation.

Required:

Discuss four assumptions of Walter's model. (8 marks)

(ii) Explain the risk-return trade off in the context of investments. (4 marks)

(Total: 20 marks)

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Present Value Interest factor of 1 Received at the End of *n* Periods at r Percent:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2693
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541	0.0320	0.0281	0.0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451	0.0258	0.0225	0.0116
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376	0.0208	0.0180	0.0089
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313	0.0168	0.0144	0.0068
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0088	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151	0.0071	0.0059	0.0024
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126	0.0057	0.0047	0.0018
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0016	0.0012	*
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0005	*	*
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014	*	*	*
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.0026	0.0007	*	*	*
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	*	*	*	*

Present Value Interest factors for Annuity of 1 Discounted at r Percent for *n* Periods:

$$PVIFA_{r,n} = [1 - 1/(1+r)^n]/r$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4.7296	4.0333	3.8874	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196	6.7291	6.3729	6.0472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7016	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.8393	7.3658	6.9380	6.5504	6.1982	5.8775	4.8435	4.0967	3.9424	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0751	7.5620	7.1016	6.6870	6.3125	5.9731	4.8913	4.1212	3.9631	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.4424	8.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	8.3481	7.7843	7.2829	6.8351	6.4338	6.0726	4.9371	4.1428	3.9811	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.6442	8.8552	8.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1644	3.9984	3.3330
36	30.108	25.489	21.832	18.908	16.547	14.621	13.035	11.717	10.612	9.6765	8.8786	8.1924	7.5979	7.0790	6.6231	6.2201	4.9929	4.1649	3.9987	3.3331
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.9511	8.2438	7.6344	7.1050	6.6418	6.2335	4.9966	4.1659	3.9995	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	9.0417	8.3045	7.6752	7.1327	6.6605	6.2463	4.9995	4.1666	3.9999	3.3333

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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

TUESDAY: 26 November 2019. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) In the context of agency theory:

(i) Explain the "principal-agent" problem. (2 marks)

(ii) Explore two ways of addressing the principal-agent problem. (4 marks)

(b) Sasumua Ltd. is considering a review of its credit policy as a way of enhancing its working capital management:

The following information relates to the company:

- Annual sales amount to Sh.6,000,000.
- Credit sales are 80% of all sales.
- Bad debts average 3% of all credit sales.
- Average collection period for debtors is 45 days.
- Gross profit on sales is 75%.
- The company's cost of capital is 12% per annum.
- Terms of credit sales are net 60 days.

The company's credit manager is recommending a review of the credit policy of the company. The expected outcome of this action will be:

- Increase in total sales by 40%.
- Credit sales will be 60% of all sales.
- Average collection period will decrease to 30 days.
- Bad debts will increase to 5% of credit sales.
- An additional part-time credit consultant will be hired at Sh.500,000 per annum.
- Gross profit margin will increase to 80%.
- Terms of credit sales will be 5/15 net 45. All credit customers will enjoy the 5% cash discount subject to the terms.
- No change is expected in the firm's cost of capital.
- The tax rate is 30%.

Required:
Advise the company on whether to adopt the revised credit policy. (7 marks)

(c) The current capital structure of Ahadi Ltd. is given as follows:

	Sh."000"
Ordinary shares (Sh.10 each)	30,000
10% debentures	15,000
12% preference shares (Sh.20 each)	5,000
	50,000

Additional information:

1. The current market value of ordinary shares and preference shares is Sh.50 and Sh.30 respectively.
2. The debentures are irredeemable and have a market value of Sh.120 per Sh.100 nominal value.
3. The most recent earnings per share (EPS) of the company is Sh.6.
4. The company currently adopts a 60% dividend payout ratio as its dividend policy. However, the firm's future dividends are expected to grow at a rate of 7% each year for the foreseeable future.
5. Corporate tax rate is 30%.

Required:

The company's weighted average cost of capital (WACC) using market value weights. (7 marks)

(Total: 20 marks)

QUESTION TWO

(a) (i) Explain the term "cross-border" listing. (2 marks)

(ii) Discuss two benefits of cross-border listing to a quoted company. (4 marks)

(b) Maua Horticultural Ltd. runs a flower export business. The company has two sources of funds at different interest rates. The finance cost for short-term funds is 20% while the cost of long-term funds is 25%. These costs are expected to remain constant in the next two years.

The following are the projected monthly working capital requirements of the company for the year ending 31 December 2020:

Month	Working capital required (Sh."000")
January	35,000
February	35,000
March	52,500
April	70,000
May	105,000
June	157,500
July	210,000
August	242,500
September	157,500
October	87,500
November	70,000
December	52,500

Required:

(i) The average monthly permanent and seasonal working capital requirements for the company. (6 marks)

(ii) Total cost of working capital finance for the company under an aggressive financing policy, conservative financing policy and matching financing policy. (6 marks)

(iii) Advise the company on the appropriate working capital financing policy to adopt. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) Using a well labelled diagram, distinguish between "systematic risk" and "unsystematic risk". (4 marks)

(b) An investor has presented the following information relating to forecasted returns of two securities, Y and Z together with their respective probabilities:

Probabilities (Pi)	Forecasted returns (%) Y	Z
0.10	10	8
0.20	12	10
0.35	8	7
0.05	15	12
0.15	14	11
0.15	9	8

Required:

(i) The standard deviation of security Y and security Z returns. (6 marks)

(ii) The relative risk of security Y and security Z. (2 marks)

(iii) Advise the investor on which of the two securities to invest in. (1 mark)

(c) Fairland Industries Ltd. has recently been listed on the securities exchange.

The company has a policy of paying out a gradually increasing dividend per share over the past five years, as indicated below:

Year	Earnings per share (EPS) Sh.	Dividend per share (DPS) Sh.
2014	118	5.0
2015	125	5.5
2016	146	6.0
2017	135	6.5
2018	160	7.3

Additional information:

1. The company has recently paid the dividends for the year ended 31 December 2018. The shares are therefore quoted ex-dividend.
2. The management is considering a change in the financing policy whereby greater financing will be provided from internally generated funds. This is expected to reduce the dividend per share to Sh.5 in the year ending 31 December 2019.
3. The growth rate in earnings per share (EPS) and dividend per share (DPS) is expected to increase to 14% per annum from the year ending 31 December 2019.
4. The company's shareholders require a minimum return on investment of 16%.

Required:

(i) Using the dividend growth model, determine the market price per share (MPS) as at 31 December 2018 prior to the change in the financing policy. (3 marks)

(ii) The market price per share (MPS) as at 31 December 2018 under the new financing policy. (2 marks)

(iii) The break-even growth rate in dividend per share (DPS) using the market price calculated in (c) (i) above. (2 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Islamic finance is considered as one of the fastest growing sub-sectors in the financial industry.

Required:

Describe three common financial products provided by Islamic finance institutions, citing how each product differs from that provided by non-Islamic financial institutions. (6 marks)

(b) Riverside Ltd. requires Sh.4,500,000 to finance an upcoming project. The firm's existing share capital constitutes 120,000 ordinary shares whose current market price per share is Sh.100. The management of the company has proposed to raise funds through a rights offering at a discount rate of 25% on current share price.

Required:

(i) The number of ordinary shares to be issued to raise the required capital. (2 marks)

(ii) The number of rights required to subscribe for one new ordinary share. (2 marks)

(iii) The theoretical ex-right market price per ordinary share. (2 marks)

(c) A financial analyst has predicted the following returns on the securities of two companies, Coral Ltd. and Reef Ltd., operating in the same industry, during the financial year ending 31 December 2019 under different states of the economy.

State of economy	Probability	Forecasted return (%) Coral Ltd.	Forecasted return (%) Reef Ltd.
Boom	0.20	16	14
Normal	0.60	12	10
Recession	0.20	8	6

A prospective investor is considering investing Sh.500,000 in the shares of both firms. He wishes to invest Sh.300,000 in shares of Coral Ltd. and the balance in the shares of Reef Ltd. The prospective investor feels that his 2 – asset portfolio will not only guarantee him his required return but will assist him to eliminate diversifiable risks.

Required:
On the basis of 2 - asset portfolio, determine:

(i) Portfolio's expected rate of return. (3 marks)

(ii) Portfolio's actual risk using the mathematical model. (5 marks)
(Total: 20 marks)

QUESTION FIVE

(a) The concept of interest rate capping has generated considerable interest from players in both public and private sectors, particularly in developing economies.

Required:
(i) Describe the link between interest rates and availability of credit to small and medium size enterprises (SMEs). (2 marks)

(ii) Citing three reasons, summarise the case for and against interest rate capping in an economy. (6 marks)

(b) With reference to valuation of securities, explain the distinctive features of the following valuations:

(i) Conversion value. (2 marks)

(ii) Liquidation value. (2 marks)

(iii) Market value. (2 marks)

(c) Virgin Industries had issued 72 million ordinary shares as at 31 March 2019. The company had maintained an annual dividend payment of Sh.180 million including for the year ended 31 March 2019.

On 3 April 2019, the management of the company was awarded a four year tender that would cost Sh.720 million. The directors decided to finance the tender by issuance of ordinary shares at par.

The return on investment (ROI) was expected to be 25% per annum on the cost over the next four years ending 31 March 2023.

All earnings would continue to be paid out as dividends to the shareholders.

The cost of capital is 20%.

Required:
(i) The value of an ordinary share as at 31 March 2019. (2 marks)

(ii) The value of the company as at 3 April 2019 assuming that the management made a decision to undertake the investment. (4 marks)
(Total: 20 marks)

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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 22 May 2019. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain the following dividend theories:

(i) Information signalling theory. (2 marks)

(ii) Tax differential theory. (2 marks)

(iii) Bird-in-hand theory. (2 marks)

(iv) Agency theory. (2 marks)

(b) Clare Mwatata is planning to invest in a long-term project. An investment banker has provided her with the following two investment options:

Option 1: To invest in a corporate bond selling at Sh.875. The bond would be redeemed after 5 years at Sh.1,600.

Option 2: To invest in a 16% debenture with a face value of Sh.100 quoted at Sh.95. The debenture would be redeemed after 5 years.

The minimum required rate of return is 18%.

Required:
Using the yield to maturity (YTM) valuation model, advise Clare Mwatata in making the investment decision. (6 marks)

(c) An investor holds 1,000 ordinary shares in Upendo Ltd., a company quoted at the securities exchange. The company has been paying average dividends of Sh.1.50 per share annually in recent years.

The firm's dividends are expected to grow at a rate of 10% per annum in the coming three years, then grow at a rate of 8% per annum over the next two years and thereafter grow at a constant rate of 5% per annum into perpetuity.

The minimum required rate of return is 12%.

Required:
Using the discounted cash flow valuation method, determine the current value of the 1,000 ordinary shares of Upendo Ltd. (6 marks)

(Total: 20 marks)

QUESTION TWO

(a) Propose four reasons that might make a firm use reserves to finance its operations. (4 marks)

(b) (i) The management of Amani Limited is considering listing at the securities exchange and intends to undertake valuation of its shares.

The following information is provided:
1. The current earnings per share (EPS) of the firm is Sh.4.
2. The firm has in issue 10 million ordinary shares with a 40% dividend payout ratio.
3. The firm has an equity capital of Sh.200 million with a minimum required rate of return of 18%.

Required:
The current theoretical value of the firm's ordinary shares using dividend growth model. (6 marks)

(ii) XYZ Ltd. has a net tangible assets worth Sh.48 million and a return on assets (ROA) of 12%.

The company expects to receive a profit of Sh.10 million annually for the next 5 years.

The company has 2 million outstanding ordinary shares.

Required:
The theoretical value per share using the super-profit model. (4 marks)

(c) In an effort to lower its accounts receivable balances, Chizingo Manufacturing Limited is considering to switch from its existing no discount policy to a 2% cash discount for payment done by 15th day after sale.

It is estimated that 60% of the customers would take the discount and the average collection period is expected to decline from 60 days to 45 days.

The company's management projects an increase of 20,000 units in annual sales to 220,000 units at the existing price of Sh.2,500 per unit.

Additional information:
1. The variable cost per unit is Sh.2,100 and the average cost per unit is Sh.2,300.
2. The company requires a 15% return on investment (ROI).
3. The corporate tax rate is 30%.
4. All sales are on credit basis.
   Assume 365 days in a year.

Required:
Advise the management of Chizingo Manufacturing Limited on whether to offer the cash discount to customers. (6 marks)

(Total: 20 marks)

QUESTION THREE

(a) The capital structure of Maweni Limited is given as follows:

	Sh. "000"
Ordinary share capital (Sh.20 par value)	50,000
Retained earnings	30,000
12% irredeemable debenture capital (Sh.20 par value)	25,000
14% preference share capital (Sh.25 par value)	15,000
	120,000

Additional information:
1. The current market price of the firm's ordinary shares is quoted at Sh.45 cum-dividend.
2. The firm paid a dividend of Sh.5 per share in the just ended year.
3. The firm adopts a 60% dividend payout ratio.
4. The firm's return on equity (ROE) is 20%.
5. The existing 12% irredeemable debenture is currently trading at Sh.112 cum-interest.
6. The 14% preference shares are currently trading at Sh.33.50 cum-dividend at the securities exchange.
7. The corporate tax rate applicable is 30%.

Required:
(i) The cost of ordinary share capital. (3 marks)

(ii) The cost of 12% irredeemable debenture capital. (2 marks)

(iii) The cost of 14% irredeemable preference share capital. (2 marks)

(iv) The firm's weighted average cost of capital (WACC). (5 marks)

(b) The following is a summary of financial data for Hakika Ltd. for the financial year ended 31 December 2017 and 31 December 2018:

	2018 Sh."000"	2017 Sh."000"
Income statement:		
Earnings before interest and tax (EBIT)	29,498	27,012
Interest	(3,106)	(3,726)
Tax	(8,694)	(7,452)
Earnings after interest and tax (EAIT)	17,698	15,834
Dividend payable	9,600	6,200

	Sh."000"	Sh."000"
Statement of financial position:		
Shareholders' funds	79,800	70,174
Long-term debt	28,000	35,000
	107,800	105,174

Additional information:

			2018	2017
1.	The number of outstanding shares ("000")		28,000	28,000
2.	Price-earnings (P/E) ratio :	Hakika Ltd.	14.00	13.00
		Industry	15.20	15.00

Required:
Calculate the following ratios for years 2017 and 2018:

(i) Return on capital employed (ROCE). (2 marks)

(ii) Interest coverage ratio. (2 marks)

(iii) Earnings per Share (EPS). (2 marks)

(iv) Dividend yield. (2 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Credit card finance has become popular in the recent past compared to usage of cash to effect commercial transactions.

Required:
With reference to the above statement;

(i) Highlight four reasons behind the fast growth of credit card finance in your country. (4 marks)

(ii) Evaluate four limitations of using credit cards as a source of finance. (4 marks)

(b) Juhudi Industries intends to replace an existing machine with a new one which is more efficient. The existing machine was acquired 2 years ago at a cost of Sh.4 million. The useful life of this machine was originally expected to be 5 years with no salvage value. However, the valuer has now estimated that the machine shall have an economic useful life of 10 more years and a salvage value of Sh.500,000.

The new machine is estimated to cost Sh. 8 million. An additional installation cost of Sh.400,000 shall be incurred. The new machine has a useful economic life of 10 years. The financial analyst of the company estimates that the existing machine could be sold for Sh.2.5 million at the current prevailing market price.

The new machine is expected to increase sales whereby debtors would increase by Sh.320,000, inventory by Sh.140,000 while creditors would increase by Sh.300,000.
The profit before depreciation and tax over the next 10 years for the two machines is given as follows:

Year	New machine Sh."000"	Existing machine Sh."000"
1	350	280
2	400	300
3	420	320
4	410	340
5	410	340
6	380	320
7	380	310
8	350	280
9	300	260
10	280	240

Additional information:
1. The company's required cost of capital is 10%.
2. Corporate tax rate is at 30%.
3. The company uses a straight-line method of depreciation.

Required:
Using the net present value (NPV) method, advise the management of Juhudi Industries on whether to replace the existing machine with the new one. (12 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Summarise four main features of Islamic insurance mortgage (takaful). (4 marks)

(b) The capital structure of Karakara Limited which is considered optimal is given as follows:

	Sh. "000"
Ordinary share capital (Sh.10 par value)	90,000
Retained earnings	75,000
15% preference share capital (Sh.100 par value)	45,000
16% debenture capital	90,000
	300,000

The company has total assets amounting to Sh. 360 million but it is expected the assets will rise to Sh.500 million by the end of the current financial year.

Additional information:

1. New equity shares sold will net 90% after floatation costs.
2. The current market price per share (MPS) of the ordinary shares is Sh.25.
3. New ordinary shares will be issued at the current market price subject to a floatation cost of 10% of the issue price.
4. New 16% debentures can be issued at par through the securities exchange.
5. The past and expected earnings growth rate is 10%. Dividend growth rate is expected to be matched with the earnings growth rate.
6. The current earnings yield is 24%.
7. The company adopts a constant dividend payout ratio of 50%.
8. New 15% preference shares can be issued at the current selling price of Sh.120 each.
9. The retained earnings available for investment purposes is Sh.29,700,000.
10. The corporate tax rate is 30%.

Required:

The number of ordinary shares that must be sold in order to raise the required equity capital. (6 marks)

(c) (i) Explain the term "abandonment" as used in capital budgeting decisions. (2 marks)

(ii) Palakumi Agribusiness Ltd. is analysing a youth empowerment project. The following information is provided:

Year	Cash flow (Sh. "million")	Abandonment value (Sh. "million")
0	(16)	-
1	8	12
2	6	8
3	5	6
4	4	-

The company's cost of capital is 10%.

Required:

Advise the management of Palakumi Agribusiness Ltd. on the optimal time to abandon the project. (5 marks)

(d) Bidii Enterprises is a small medium enterprise (SME) in floriculture industry. The company intends to invest Sh.300,000 in a project that has a useful economic life of 4 years.

The following are the expected cash flows:

Year	**1**	**2**	**3**	**4**
Cash flows (Sh.)	140,000	120,000	80,000	60,000

The company's required rate of return is 14%.

Required:

The modified internal rate of return (MIRR) of the project. (3 marks)

(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 28 November 2018. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Examine four assumptions of the Modigliani and Miller (MM) dividend irrelevance Theory. (4 marks)

(b) Differentiate between the following terms as applied in finance:

(i) "Operating leverage" and "financial leverage". (2 marks)

(ii) "Cum-right" and "ex-right" market price per share. (2 marks)

(iii) "Time value of money" and "time preference for money". (2 marks)

(c) The fixed operating cost for Gahaleni Pharmaceutical Ltd. are Sh.5.8 million per annum and the variable cost ratio is 0.20.

Additional information:

1. The company has Sh.2 million in bonds outstanding with an annual coupon interest rate of 8 per cent.
2. The company has 30,000 preference shares outstanding which pay Sh.2 dividend per share each year.
3. The company has 100,000 ordinary shares outstanding.
4. Revenues of the company are Sh.8 million per annum.
5. The company is in the 30% corporate tax bracket.

Required:

(i) The degree of operating leverage. (4 marks)

(ii) The degree of financial leverage. (3 marks)

(iii) The degree of combined leverage. (3 marks)

(Total: 20 marks)

QUESTION TWO

(a) Describe four limitations of the net present value (NPV) method of investment appraisal. (4 marks)

(b) The management of Bundacho Limited is in the process of evaluating two projects, namely Alpha and Beta.

The estimated pre-tax cash flows of each of the projects are as follows:

Year	Project Alpha Pre-tax cash flows Sh. "000"	Project Beta Pre-tax cash flows Sh. "000"
1	2,590	4,300
2	2,880	3,290
3	3,050	3,200
4	2,950	3,700
5	-	4,850
6	-	4,420

Additional information:
1. Project Alpha costs Sh.3.8 million and has an estimated lifespan of 4 years.
2. Project Beta costs Sh.8 million with an estimated lifespan of 6 years.
3. Both projects have a zero salvage value.
4. An investment in working capital of Sh.825,000 will be required irrespective of the project to be undertaken.
5. The cost of capital for the company is 12%.
6. The corporate tax rate is 30%.

Required:
Using the discounted payback period method, recommend to the management of Bundacho Limited on which project to undertake. (8 marks)

(c) The earnings per share (EPS) and dividend per share (DPS) data for Maraba Ltd. over the last five years are provided below:

Year	Dividend per share (DPS) (Sh.)	Earnings per share (EPS) (Sh.)
2013	1.00	2.50
2014	1.10	2.70
2015	1.20	3.00
2016	1.50	3.20
2017	1.80	3.50

Additional information:
1. A prospective investor is considering buying the shares of this company which are currently selling at Sh.55 each at the securities exchange.
2. The investor's required rate of return is 20%.

Required:
Advise the investor on whether to buy the shares of Maraba Ltd. using Gordon's model. (8 marks)
(Total: 20 marks)

QUESTION THREE

(a) Propose four factors that might lead to soft capital rationing in a limited company. (4 marks)

(b) Explain four roles that are played by insurance companies in the financial market of your country. (4 marks)

(c) Bemunyonge Ltd. has just paid a dividend of Sh.4 per share. The company expects that the dividend will grow at the rate of 20% per annum for the first two years, then grow at the rate of 10% per annum for the next 2 years and thereafter grow at the rate of 6% per annum into perpetuity. The required rate of return for the company is 16%.

Required:
The theoretical value of the company's share. (4 marks)

(d) Bahati Enterprises is considering amendments to its current credit policy. The firm's current annual credit sales amount to Sh.6,000,000.
The current credit terms are net 30 with an average debtors collection period of 45 days.

The following information relates to the proposed credit policy:

1. The credit period to be extended to net 60.
2. Annual sales are expected to increase by 20%.
3. Bad debts are expected to increase from 2% to 2.5% of the annual credit sales.
4. Credit analysis and debt collection costs are expected to increase by Sh.84,000 per annum.
5. The return on investment in debtors is 12%.
6. For every Sh.100 of sales, Sh.75 is the variable cost.
7. Assume one year has 360 days.

Required:
Advise the management of Bahati Enterprises on whether to adopt the proposed credit policy. (8 marks)
(Total: 20 marks)

QUESTION FOUR

(a) The following are the financial statements for ABC Ltd. and XYZ Ltd. for the year ended 30 September 2018:

Income statement for the year ended 30 September 2018:

		ABC Ltd. Sh. "million"		XYZ Ltd. Sh. "million"
Revenues		4,000		6,000
Cost of sales		(3,000)		(4,800)
Gross profit		1,000		1,200
Expenses:				
Distribution costs	200		150	
Administration expenses	290		250	
Finance costs	10	(500)	400	(800)
Profit before tax		500		400
Tax paid		(120)		(90)
Profit after tax		380		310
Dividends paid		(150)		(100)
Retained profits for the year		230		210
Retained profit brought forward		220		2,480
Retained profit carried forward		450		2,690

Statement of financial position as at 30 September 2018:

		ABC Ltd. Sh. "million"		XYZ Ltd. Sh. "million"
Non-current assets:				
Land and buildings		1,200		5,000
Furniture and motor vehicles		600		1,000
		1,800		6,000
Current assets:				
Inventories	400		800	
Trade receivables	850		750	
Financial assets	100		230	
Cash at bank	-	1,350	100	1,880
		3,150		7,880
Financed by:				
Equity and liabilities:				
Ordinary share capital		1,000		1,600
Retained profits		450		2,690
		1,450		4,290
Non-current liabilities:				
Bank loan		500		3,000
Current liabilities:				
Trade payables	1,080		590	
Bank overdraft	120	1,200	-	590
		3,150		7,880

Required:

(i) Vertical common size statements of income for the year ended 30 September 2018. (6 marks)

(ii) Vertical common size statements of financial position as at 30 September 2018. (6 marks)

(b) NewWays Ltd. intends to raise new capital to expand its production level.

The company plans to undertake the following financial decisions:

1. Issue 200,000 ordinary shares which have a par value of Sh.10 at Sh.16 per share. The floatation cost per share is Sh.1.

2. Issue 75,000, 12% preference shares which have a par value of Sh.20 at Sh.18 per share. The total floatation cost is Sh.150,000.
3. Issue 50,000, 18% debentures which have a par value of Sh.100 at Sh.80 per debenture.
4. Borrow Sh.5,000,000, 18% long-term loan. The total floatation cost is Sh.200,000.

Additional information:
1. The company paid 28% ordinary dividends which is expected to grow at the rate of 4% per annum.
2. The corporate tax rate is 30%.

Required:
(i) The total capital to be raised net of floatation costs. (2 marks)

(ii) The weighted marginal cost of capital (WMCC) for the company. (6 marks)
(Total: 20 marks)

QUESTION FIVE
(a) Highlight four circumstances under which investors might find it suitable to use an Islamic equity fund. (4 marks)

(b) William Mgunya intends to invest Sh.200,000 in a redeemable 12%, Sh.100 debentures for 3 years. The current market value of the debentures is Sh.80 per debenture.

The required rate of return on the debentures is 10% per annum.

Required:
Advise William Mgunya on whether to invest in the debentures. (4 marks)

(c) Daima Investment Bank has provided the following information relating to two of its securities namely: A and B:

State of economy	**Probability (P_i)**	**Security returns (%)**	
		A	**B**
Stable	0.30	12	6
Expansion	0.40	15	7.5
Recession	0.30	10	5

Required:
(i) The expected return for each security. (2 marks)

(ii) The standard deviation for each security. (2 marks)

(iii) The correlation coefficient between the two securities' returns. (3 marks)

(iv) Determine the expected return of a portfolio constituting 60% of Security A and 40% of Security B. (2 marks)

(v) Compute the risk of the portfolio in (c) (iv) above. (3 marks)
(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	8696	.8621	.8475	.8333	.8065	7813	7576	7353
2	.9803	.9612	.9426	.9246	.9070	.8900	8734	.8573	.8417	8264	.7972	7695	7561	.7432	.7182	.6944	.6504	.6104	5739	5407
3	.9706	.9423	.9151	.8890	.8638	.8396	8163	7938	.7722	.7513	.7118	6750	.6575	.6407	6086	.5787	.5245	.4768	4348	3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	6355	5921	.5718	.5523	.5158	.4823	.4230	.3725	3294	2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	6499	.6209	.5674	5194	4972	.4761	.4371	.4019	.3411	2910	2495	2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	6302	.5963	.5645	.5066	.4556	.4323	4104	.3704	.3349	.2751	.2274	1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	5403	.5019	.4665	.4039	3506	3269	.3050	.2660	.2326	.1789	.1388	.1085	0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	1938	.1443	.1084	.0822	.0628
10	.9053	8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	2697	2472	.2267	.1911	.1615	.1164	.0847	0623	0462
11	8963	.8043	7224	.6496	.5847	.5268	.4751	.4289	3875	.3505	.2875	2366	.2149	.1954	1619	.1346	.0938	.0662	.0472	0340
12	.8874	.7885	.7014	6246	.5568	.4970	.4440	.3971	.3555	.3186	2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	1597	.1413	.1252	.0985	.0779	0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	2745	.2394	.1827	1401	.1229	.1079	.0835	.0649	.0397	.0247	0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	2176	.1631	.1229	1069	.0930	0708	.0541	.0320	.0193	.0118	0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	0054
18	.8360	.7002	.5674	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	0946	.0808	.0691	.0508	0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	2145	1784	1486	1037	.0728	0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	7798	.6095	4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	0378	.0304	0245	0160	.0105	.0046	.0021	.0010	0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	0994	.0754	.0573	.0334	0196	.0151	.0116	0070	.0042	.0016	0006	.0002	.0001
40	.6717	4529	3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	
60	.5504	.3048	1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	0004	.0002	0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of Payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1 6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1 7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2 5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4 3295	4.2124	4.1002	3.9927	3.8897	3 7908	3.6048	3.4331	3.3522	3.2743	3 1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4 6229	4.4859	4.3553	4.1114	3 8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2 5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2 7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6 8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4 7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6 4951	5.9377	5.4527	5 2337	5.0286	4.6560	4.3271	3.7757	3.3351	2 9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7 4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10 5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3 0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6 9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11 2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5 7487	5.2223	4.7746	4.0591	3.5177	3 0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7 2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3 1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5 8775	5.3162	4 8435	4.0967	3.5386	3 1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9 1285	8 5136	7.4694	6.6231	6.2593	5 9288	5.3527	4.8696	4.1103	3.5458	3 1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9 8226	9.0770	7.8431	6 8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3 1220
30	25.8077	22.3965	19 6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9 4269	8 0552	7 0027	6 5660	6.1772	5.5168	4 9789	4.1601	3.5693	3 1242
40	32.8347	27.3555	23.1148	19 7928	17.1591	15.0463	13.3317	11.9246	10 7574	9 7791	8.2438	7 1050	6.6418	6.2335	5.5482	4.9966	4 1659	3 5712	3 1250
50	39.1961	31 4236	25.7298	21.4822	18 2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4 9995	4.1666	3.5714	3 1250
60	44.9550	34.7609	27.6756	22 6235	18.9293	16.1614	14.0392	12.3766	11.0480	9 9672	8 3240	7.1401	6 6651	6 2402	5 5553	4.9999	4 1667	3.5714	3 1250

kasneb

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 23 May 2018. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain three working capital financing policies and their implications in an organisation. (6 marks)

(b) Chauringo Limited wishes to expand its business. The company is considering to issue Sh.50 million worth of redeemable bonds denominated in Sh.1,000. The bond's rate of interest is 10% and will mature on 30 June 2028. The bonds will be issued on 1 July 2018.
The cost of capital is 18% per annum for the whole period.

Required:

(i) The current value of the bond. (3 marks)

(ii) The par value of the bond. (2 marks)

(c) Maandani Enterprises maintains a minimum cash balance of Sh.10,000. The standard deviation of the daily cash flows is Sh. 2,500. The transaction cost of each marketable security is Sh.20.
The interest rate of a marketable security is 9.2% per annum.
Assume 365 days in a year.

Required:
Using the Miller-Orr model of cash management, determine:

(i) The optimal cash balance. (3 marks)

(ii) The upper cash limit. (2 marks)

(iii) The average cash balance. (2 marks)

(iv) The spread. (2 marks)
(Total: 20 marks)

QUESTION TWO

(a) Explain three assumptions of the Gordon's dividend model. (6 marks)

(b) Kubusa Ltd. is contemplating the acquisition of a new machine to replace the one currently being used in production process. The existing machine was acquired 2 years ago at a cost of Sh.8 million. The existing machine was estimated to have a useful life of 5 years with no salvage value. However, a critical analysis of the machine now shows that the machine is usable for the next 5 years with a salvage value of Sh.1.5 million. The existing machine can be disposed of now at Sh.4 million.

The new machine is expected to cost Sh.12.56 million with a salvage value of Sh.4 million at the end of its useful life of 5 years. The new machine will also require an additional investment in working capital of Sh.2.6 million at the start of its useful life which will however be recovered at the end of its useful life.

The following information relates to the estimated earnings before depreciation and tax (EBDT) over the coming five year period for the two machines:

Year	New machine (Sh. "000")	Existing machine (Sh. "000")
1	5,400	3,200
2	5,400	2,800
3	5,400	3,000
4	5,400	2,400
5	5,400	2,000

Kubusa Ltd.'s cost of capital is 13%. The company applies straight-line method of depreciation.

The corporate tax rate is 30%.

Required:
Using the net present value (NPV) technique, advise the management of Kubusa Ltd. on whether to replace the existing machine with the new machine. (14 marks)

(Total: 20 marks)

QUESTION THREE

(a) Argue three cases for and three cases against the use of market values for various components of cost of capital in determining the weighted average cost of capital (WACC) of a firm. (6 marks)

(b) Akiba Limited has the following capital structure:

	Sh. "000"
3,000,000 fully paid ordinary shares	30,000
Retained earnings	20,000
1,000,000 10% preference shares	20,000
6% debentures (Sh.150 par value)	30,000

Additional information:

1. The current market price per share (MPS) is Sh.30.
2. The expected dividend per share in the following year is Sh.1.20.
3. The average growth rate in both earnings and dividends has been maintained at 10% over the last 10 years. The trend is expected to remain the same into the foreseeable future.
4. The debentures are trading at Sh.110 at the securities market.
5. The debentures mature in 100 years period.
6. The preference shares were issued 4 years ago and they are still trading at face value.
7. The corporate tax rate is 30%.

Required:
Weighted average cost of capital (WACC) for the company. (8 marks)

(c) The profit after tax of Muhendato Ltd. as at 30 April 2017 was Sh.6,500,000. The company is quoted at the securities exchange and its shares are currently selling for Sh.40 each.
The company's dividend policy is to pay out 40% of its earnings for the year as dividends on its 1,000,000 issued and fully paid up shares.
The company's profit after tax is expected to increase by 15% per year for three years and 8% per year thereafter.
Dividends will grow at the same rate as profits of the company.
The shares of the company are expected to sell at Sh.64 per share at the end of five years from now.
The cost of capital for the company is 12% per annum.

Required:
Determine whether the shares of Muhendato Ltd. are currently fairly valued, undervalued or overvalued for an investor expecting to sell them after 5 years. (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Explain the following terms as used in Islamic finance:

(i) Ijara. (2 marks)

(ii) Sukuk. (2 marks)

(b) Distinguish between the terms "capital market" and "money market". (2 marks)

(c) (i) Describe two types of capital rationing in capital budgeting. (4 marks)

(ii) Amani Contractors Ltd. is intending to invest in four independent projects. The following information relates to the four projects:

Project	**A**	**B**	**C**	**D**
Present values of cash inflows (Sh. "million")	50	60	100	70
Initial outlay (Sh. "million")	(30)	(45)	(60)	(40)
Net present values (Sh. "million")	20	15	40	30

Additional information:

1. The company has a capital limitation of Sh.90 million.
2. The company's required rate of return is 10%.
3. Any surplus funds can be re-invested to generate a return of net cash flow of 14% in perpetuity.
4. The projects are indivisible.
5. The projects can be combined to achieve a higher return subject to the company's capital limitation.

Required:

Advise on the optimal project combination. (5 marks)

(d) Maua Ltd. is in the process of completing construction of a green house.
The finance manager has estimated that the project's useful life is 15 years and shall generate the following cash flows:

Years	**Cash flows (Sh. "000")**
1 - 5	5,000
6 - 10	9,000
11 - 15	4,000
	18,000

The required rate of return for the company is 10%.

Required:

The total present value of the project. (5 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Distinguish between "financial planning" and "financial forecasting". (2 marks)

(b) Explain four benefits that might accrue from demutualisation of securities exchange of your country. (4 marks)

(c) Furunzi Express Ltd.'s records got lost in a fire that burnt down the accounts office.

The following information was however obtained from the laptop of the accountant for the year ended 31 December 2017:

Opening stock	Sh.450,000
Stock turnover ratio	10 times
Net profit margin	15%
Gross profit margin	20%
Current ratio	4:1
Long-term loan	Sh.1,000,000
Depreciation of fixed assets (10%)	Sh.100,000
Closing stock	Sh.510,000

Additional information:

1. Credit period allowed by suppliers is one month.
2. Average debt collection period is 2 months.
3. On 31 December 2017, current assets consisted of stock, debtors and cash only.
4. There was no bank overdraft.
5. All purchases are made on credit.
6. Cash sales were ¼ of total sales.

Required:

(i) Cost of sales. (2 marks)

(ii) Gross profit. (2 marks)

(iii) Total sales. (2 marks)

(iv) Total purchases. (2 marks)

(v) Net profit. (2 marks)

(vi) Debtors value. (2 marks)

(vii) Creditors value. (2 marks)

(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	.8696	8621	.8475	.8333	.8065	.7813	7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	5739	5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	7722	.7513	7118	.6750	6575	.6407	6086	.5787	.5245	.4768	4348	3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	2697	.2472	.2267	.1911	1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	.0708	.0541	.0320	.0193	.0118	0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	0054
18	.8360	.7002	.5674	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	2145	.1784	1486	1037	.0728	0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	0160	.0105	.0046	.0021	.0010	0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	0334	0196	.0151	.0116	.0070	.0042	.0016	0006	.0002	0001
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	0053	.0037	.0026	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^t}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1 7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2 5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2 8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2 9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3 0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3 0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3 1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8 9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3 1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3 1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9 4269	8.0552	7.0027	6.5660	6 1772	5.5168	4.9789	4.1601	3.5693	3 1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3 1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4 9995	4.1666	3.5714	3 1250
60	44 9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9 9672	8.3240	7.1401	6.6651	6.2402	5 5553	4.9999	4.1667	3.5714	3 1250

kasneb

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 29 November 2017. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain four factors that might be considered when establishing an effective credit policy in an organisation. (4 marks)

(b) Summarise four hindrances to international standardisation of Islamic finance. (4 marks)

(c) Illustrate how the problem of window dressing manifests itself in measuring business performance using financial ratio analysis. (4 marks)

(d) The management of Gumbo Ltd. intends to change the company's credit policy from 'net 30' to '3/10 net 60'. If this change is effected, annual sales are expected to increase by 25% from the current level of Sh.12 million. The proportion of bad debts is also expected to increase from 10% to 15% of the credit sales.

A new credit assistant officer will also have to be employed at a salary of Sh.500,000 per annum. If there is a change in the firm's credit policy, it is expected that 60% of the credit customers will benefit from the cash discount offer.

The inventory level and variable costs are however expected to remain constant at 20% and 40% of the annual sales respectively. The firm's rate of return on investment is 14% per annum.

The corporate tax rate is 30%.

All sales are on credit.

Assume a 360-day financial year.

Required:
Advise the management of Gumbo Ltd. on whether to adopt the new credit policy. (8 marks)
(Total: 20 marks)

QUESTION TWO

(a) Explain four limitations of dividend growth model. (4 marks)

(b) Maji Mazuri Ltd. an all equity financed company has an issued share capital of Sh.10 million ordinary shares of Sh.10 par value. The company paid a dividend of Sh.0.4 per share last period and the market price per share is Sh.20 ex-dividend.

The company is contemplating raising additional funds through a rights issue. The management has proposed a 1 for 4 rights issue at an issue price of Sh.15 per share. The funds raised are intended to be used to finance a major new project which is expected to increase the company's annual after tax cash flows by Sh.950,000 in perpetuity.

Required:

(i) The cum-right market price per share (MPS) after the announcement of the rights issue. (4 marks)

(ii) The theoretical ex-right market price per share. (2 marks)

(iii) The theoretical value of each right. (2 marks)

(c) Evaluate the impact of the rights issue in (b) above on the value of wealth of an existing shareholder who holds 1,600 ordinary shares in Maji Mazuri Ltd. and Sh.10,000 in his savings account assuming that this shareholder decides to:

(i) Exercise all his rights. (3 marks)

(ii) Sell all his rights. (3 marks)

(iii) Ignore the rights issue. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) The ordinary shares of Kwekwe Ltd. are currently selling at Sh.60 each at the securities exchange. The company's price-earnings ratio is 6 times.

Kwekwe Ltd. adopts a 40% pay-out ratio as its dividend policy.

It is predicted that the company's earnings and dividends will grow at an annual rate of 10% for the first three years, 5% for the next two years and 4% thereafter in perpetuity.

The investors' minimum required rate of return is 12%.

Required:

(i) The current intrinsic value of the shares. (6 marks)

(ii) Advise the investors based on the result obtained in (a) (i) above. (2 marks)

(b) Ray Properties Ltd. is planning to build a business mall. The project will cost Sh.180 million.

The firm's current optimal capital structure is as follows:

	Sh."000"
Ordinary shares (Sh.10 par value)	480,000
10% debt (Sh.100 par value)	384,000
Retained profit	96,000
	960,000

Additional information:

1. The firm will issue a new 15% debenture at Sh.120 each with a floatation cost of Sh.10 per unit. The par value of each debenture is Sh.100.
2. New ordinary shares will be issued at the current market price of Sh.30 each with a floatation cost of Sh.5 per share.
3. The most recent dividend paid by the company was Sh.5 per share.
4. The dividend is expected to grow at the rate of 5% per annum in perpetuity.
5. The firm expects to retain Sh.18 million to finance this investment.
6. The corporate tax rate is 30%.

Required:

(i) The amount to be raised from equity capital, if the capital structure is to remain unchanged. (3 marks)

(ii) The number of ordinary shares the company should issue to raise the desired external equity capital. (3 marks)

(iii) The firm's weighted marginal cost of capital (WMCC). (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Describe four types of money market instruments. (4 marks)

(b) Highlight three agency costs that might arise in the principal-agent relationship between shareholders and managers. (3 marks)

(c) Karem Bottling Company is considering replacing one of the bottling machines with a more efficient one.

The old machine has a current net book value of Sh.2,400,000 with a remaining useful life of five years. The old machine has an estimated re-sale value of Sh.200,000 at the end of its useful life.

The existing machine's current disposal value is estimated to be Sh.1,060,000.

The new machine has a purchase price of Sh.4,700,000 and an estimated useful life of 5 years. The machine is expected to have an estimated market value of Sh.600,000 at the end of the five years.

The machine is expected to economise on electric power usage and repair costs which will save the company Sh.920,000 each year. In addition, the new machine is expected to reduce the number of defective bottles which will save an additional amount of Sh.120,000 annually.

The company's corporate tax rate is 30% with a required rate of return of 12%.

The company provides for depreciation on a straight line basis.

Assume capital gains are taxable.

Required:

(i) The initial net cash outlay. (3 marks)

(ii) The incremental net operating cash flows for years 1 through year 5. (4 marks)

(iii) The total terminal cash flows. (2 marks)

(iv) Using net present value (NPV) criteria, advise the management of Karem Bottling Company whether or not to purchase the new machine. (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Describe three factors that have limited the growth of venture capital investment in most developing countries. (6 marks)

(b) Deye Ltd. has provided the following financial results:

Year	Profit after tax (Sh."million")
2014	6.0
2015	6.2
2016	6.3
2017	6.3

The firm's earnings yield is 12%.

Required:

The value of the firm based on the present value of the expected earnings approach. (4 marks)

(c) A prospective investor is intending to buy ordinary shares of a firm listed at the securities exchange whose market price per share is Sh.30.

The forecasted market price per share for the following five months is estimated as follows:

Month	Forecasted market price per share (Sh.)	Probability
1	33	0.2
2	30	0.1
3	27	0.3
4	36	0.15
5	39	0.25

Required:
The expected return from the investment. (4 marks)

(d) Chitsaka Limited estimates that it requires Sh.12,000,000 for its operations during the following year.

The company will sell marketable securities and deposits into a cost-free no-interest bank account.

The marketable securities currently provide an interest yield of 5% per year.

The cost of selling marketable securities is Sh.60 per transaction regardless of the size of the transaction.

Assume a 365-day financial year.

Required:
Using the Baumol cash management model, determine:

(i) The optimal size of transaction for selling the marketable securities. (4 marks)

(ii) The frequency with which the securities should be sold. (2 marks)
(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

KASNEB

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 24 May 2017. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Highlight four limitations of long-term debt finance to an organisation. (4 marks)

(b) Discuss the relevance of cost of capital to a business enterprise. (6 marks)

(c) Upendo Ltd.'s existing capital structure is given as follows:

	Sh."000"
Ordinary share capital (Sh.20 par)	20,000
Reserves	5,000
10% Debenture (Sh.100 par)	10,000
8% Preference shares (Sh.20 par)	15,000
	50,000

Additional information:
1. The most recent earnings per share (EPS) of the company is Sh.5.
2. The firm adopts 40% pay-out ratio as its dividend policy.
3. Ordinary shares of the company are currently selling for Sh.50 each.
4. The existing 10% debenture is currently trading at 110% of par at the securities exchange.
5. Existing 8% preference shares are currently trading at Sh.25 each.
6. Corporate tax rate applicable is 30%.

Required:

(i) The annual dividend growth rate using Gordon's growth model. (2 marks)

(ii) Cost of ordinary share capital. (2 marks)

(iii) Cost of 10% debenture capital. (1 mark)

(iv) Cost of 8% preference share capital. (1 mark)

(v) The weighted average cost of capital (WACC) of the firm. (4 marks)
(Total: 20 marks)

QUESTION TWO

(a) The following information was extracted from the financial statements of Mwaka Limited:

Earnings per share (EPS)	Sh.15
Capitalisation rate	12%
Retention ratio	40%
Internal rate of return	16%

Required:
The price per share under:

(i) Gordon's growth model. (4 marks)

(ii) Walter's model. (4 marks)

(b) Nyadzua Limited is making a 1 for 4 rights issue costing Sh.6.40. The company has 4 million shares in issue with a market price of Sh.10.80 per share. The new shares are expected to yield 5% earnings and price to earnings (P/E) ratio of 10.

Required:

(i) The theoretical ex-right price. (4 marks)

(ii) The value per share after the rights issue. (4 marks)

(c) The 10% Sh.100 par value convertible bond of Kurawa Limited is quoted at 142% of par.

The earliest date for conversion is in 4 years' time, at the rate of 30 ordinary shares per Sh.100 nominal bond. The share is currently trading at a price of Sh.4.15. The annual coupon on the bond has just been paid.

Required:

(i) Conversion premium. (3 marks)

(ii) Interpret the answer obtained in (c) (i) above. (1 mark)

(Total: 20 marks)

QUESTION THREE

(a) The following information relates to Tsuma Enterprises Ltd. for the four months given below:

		Sh."Million"
Sales:	September	60
	October	60
	November	70
	December	90

All sales will be made on credit.

Half of the debtors are expected to pay within the month of sale and are also expected to claim a 2% cash discount. The remaining debtors are expected to pay by the beginning of the following month.

Raw materials purchases	Sh."Million"
September	20
October	40
November	40
December	30

The firm plans to pay its creditors in full in the month following that of purchase.

Wages and salaries:	Sh."Million"
September	12
October	15
November	17
December	13

Additional information:

1. All employees are paid in the month in which the wage or salary is earned.
2. Rent of Sh.10 million for each quarter is paid in March, June, September and December.
3. Other cash overheads of Sh.2 million per month are payable.
4. A new plant due for delivery in September will be paid in November at a cost of Sh.25 million.
5. On 1 October, the firm plans to have Sh.10 million in the bank.

Required:

A cash budget for the three months ending in December. (10 marks)

(b) Roka Limited has two mutually exclusive projects namely; project A and project B with initial cash outlay of Sh.50,000 each. The projects have a useful life of 5 years. The company's cost of capital is 12% with a corporate tax rate of 30%.

The expected cash flows for the projects before depreciation and tax are given below:

Year	Project A Sh."000"	Project B Sh."000"
1	42	62
2	42	32
3	42	22
4	42	52
5	42	52

The company uses straight line method of depreciation.

Required:
Using the profitability index approach, advise the management of Roka Limited on the project to consider. (10 marks)

(Total: 20 marks)

QUESTION FOUR

(a) The following are the summarised financial statements for Bokasa Limited.

Bokasa Limited statement of financial position as at 31 December:

		2015		2016
	Sh."000"	Sh."000	Sh."000"	Sh."000"
Non-current assets		4,995		12,700
Current assets:				
Inventory	40,145		50,455	
Accounts receivable	40,210		43,370	
Cash at bank	12,092		5,790	
		92,447		99,615
Total assets		97,442		112,315
Current liabilities:				
Accounts payable	34,389		39,215	
Taxation	2,473		3,260	
	36,862		42,475	
Long-term liabilities:				
10% loan notes	19,840		19,480	
Total liabilities		(56,702)		(62,315)
Net assets		40,740		50,000
Equity:				
Called-up share capital Sh.0.25 per share		9,920		9,920
Retained earnings		30,820		40,080
Shareholders' funds		40,740		50,000

Bokasa Limited income statement for the year ended 31 December:

	2015 Sh."000"	2016 Sh."000"
Revenue	486,300	583,900
Operating profit	17,238	20,670
Interest payable	(1,984)	(1,984)
Profit before taxation	15,254	18,686
Taxation	(5,734)	(7,026)
Profit for the year	9,520	11,660

	31 December 2015 Sh."000"	31 December 2016 Sh."000"
Notes:		
1. Retained profit brought forward	23,540	30,820
2. Dividends paid during the year	2,240	2,400

Required:
For each of the two years, calculate:

(i) Earnings per share (EPS). (2 marks)

(ii) Dividend cover. (2 marks)

(iii) Current ratio. (2 marks)

(iv) Acid test ratio. (2 marks)

(v) Return on capital employed (ROCE). (2 marks)

(b) Luri Limited has a bond that has 3 years to maturity. The bond's par value is Sh.1,000. Coupon payment for the bond is made annually. The current market value of the bond is 120% of par with a coupon of 12%.

Required:
The yield to maturity (YTM). (4 marks)

(c) (i) Highlight four objectives of the core principles for islamic finance regulation (CPIFR) as set out in Islamic Financial Services Board (IFSB). (4 marks)

(ii) Differentiate between "Salam contract" and "Istina contract" as used in Islamic finance. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Highlight four factors that might influence a company when establishing a dividend policy. (4 marks)

(b) Summarise four assumptions of the efficient market hypothesis (EMH). (4 marks)

(c) The goal of profit maximisation is considered to be a short-term objective with long-term survival. The firm's growth cannot be achieved without continuous profitability.

Required:
In relation to the above statement, summarise four arguments in favour of and four arguments against profit maximisation as a business goal. (8 marks)

(d) Downtop Ltd. has achieved earnings of Sh.6 million this year and the company intends to pursue a policy of financing all its investment projects from retained earnings. There are a number of investment opportunities available for Downtop Ltd., although if it does not undertake any of the projects, its annual retained earnings are expected to remain at Sh.6 million in perpetuity.

The following information is available for Downtop Ltd.:

Proportion of retained earnings (%)	Growth rate in earnings (%)	Required return on all investments by shareholders (%)
0	0	16
30	6	17
45	9	19

Required:
Using dividend growth model, determine the optimum retention policy for Downtop Ltd. (4 marks)

(Total: 20 marks)

....

Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	9615	.9524	.9434	.9346	9259	.9174	.9091	8929	8772	8696	.8621	.8475	.8333	.8065	.7813	7576	7353
2	.9803	.9612	.9426	.9246	9070	.8900	8734	8573	.8417	.8264	.7972	7695	7561	.7432	.7182	.6944	.6504	.6104	5739	5407
3	9706	.9423	.9151	8890	.8638	8396	.8163	7938	7722	.7513	.7118	6750	6575	.6407	.6086	.5787	.5245	.4768	4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	6355	5921	5718	.5523	.5158	.4823	.4230	.3725	3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	6806	.6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	2910	2495	2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	1890	.1580
7	.9327	8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	4523	3996	3759	.3538	.3139	.2791	.2218	:1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	1085	0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	0623	0462
11	8963	8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	2366	2149	.1954	.1619	.1346	.0938	.0662	0472	0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	3186	.2567	2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	2897	.2292	1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	2745	.2394	.1827	.1401	.1229	.1079	0835	0649	.0397	.0247	.0155	0099
16	8528	7284	6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	2120	.1799	1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	0313	.0168	.0092	.0051	.0029
20	8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	1486	1037	0728	0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	7798	.6095	4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	0378	0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	0196	0151	.0116	0070	.0042	.0016	0006	.0002	.0001
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	0053	0037	.0026	.0013	.0007	.0002	.0001		*
50	.6080	.3715	2281	.1407	.0872	.0543	.0339	.0213	0134	.0085	.0035	.0014	0009	.0006	0003	0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,n} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1-\frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3 6847	3.4976	3.3255	3.0205	2.7594	2 5342
7	6.7282	6.4720	6.2303	6 0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7 7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4541	4 1925	3.6819	3.2689	2 9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2 9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3 0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10 3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3 0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3 1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5 8775	5.3162	4 8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8 5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3 5458	3 1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3 1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3 1242
40	32.8347	27.3555	23.1148	19.7928	17 1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6 2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5 5553	4.9999	4.1667	3.5714	3 1250

KASNEB

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 23 November 2016. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain four disadvantages of public private partnerships (PPPs). (8 marks)

(b) Describe six steps involved in personal financial planning. (6 marks)

(c) The following data was extracted from the financial statements of XYZ Limited for the year ended 30 September 2016.

Total assets	Sh.7,000,000
Total liabilities	Sh.4,000,000
Preference share capital	Sh.500,000
Earnings per share (EPS)	Sh.1.10
Price-earnings (P/E) ratio	15
Outstanding number of ordinary shares	400,000

Required:

(i) Book value per share. (2 marks)

(ii) Market price per share. (2 marks)

(iii) Market value to book value ratio. (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) Discuss three possible solutions to adverse selection. (6 marks)

(b) Sandy Ltd. presented the following extracts of the statement of financial position as at 31 October 2016:

	Sh. "000"	Sh. "000"
Equity		
Ordinary shares (Sh.5 nominal value)	800,000	
Reserves	3,600,000	4,400,000
Long term liabilities		
4% preference shares (Sh.1 nominal value)	600,000	
7% bonds (redeemable after 6 years)	600,000	
Long term bank loan	200,000	1,400,000

Additional information:

1. Ordinary shares of Sandy Ltd. have an ex-div market value of Sh.47.00 per share and an ordinary dividend of Sh.3.63 per share has just been paid.
2. The following dividends have been paid over the past four years:

Year	**2013**	**2014**	**2015**	**2016**
Dividend per share (Sh.)	3.09	3.22	3.36	3.50

3. The preference shares are not redeemable and have an ex-div market value of 40 cents per share.
4. The 7% bond is redeemable at 5% premium to their nominal value of Sh.100 per bond and have an ex-interest market value of Sh.104.50.

5. The bank loan has a variable interest rate that has averaged 4% per year in recent years.
6. The corporate tax rate is 30%.

Required:

(i) The weighted average cost of capital (WACC). (10 marks)

(ii) Explain four reasons why the cost of equity could be greater than the cost of debt. (4 marks)

(Total: 20 marks)

QUESTION THREE

(a) The management of Georgina Ltd. wishes to establish the amount of external financial needs for the year ending 31 December 2016. The statement of financial position of the company as at 31 December 2015 was as follows:

	Sh."000"
Plant and machinery	31,200
Furniture and fittings	18,720
Motor vehicles	12,480
Inventory	19,200
Account receivables	14,400
Cash and bank	3,600
	99,600
Financed by:	
Ordinary share capital	42,000
Retained profit	17,600
14% debenture capital	10,000
Account payables	18,000
Accrued expenses	12,000
	99,600

Additional information:

1. The sales for the year ended 31 December 2015 amounted to Sh.120,000,000.
2. The company forecasts that sales will increase by 10% for the year ending 31 December 2016.
3. For the year ended 31 December 2015, the after-tax profit of the company amounted to Sh.18,000,000.
4. The company adopts 80% payout ratio as its dividend policy. The payout ratio is expected to remain constant each year in perpetuity.
5. The after-tax profit margin is also expected to remain constant each year.
6. Assets are expected to vary directly with sales while account payables and accrued expenses form the spontaneous sources of financing.
7. Any external financing will be effected through long term debt financing.

Required:

(i) The amount of external 12% long term debt financing that would be required for the year ending 31 December 2016. (4 marks)

(ii) A forecast statement of financial position as at 31 December 2016. (6 marks)

(iii) Comment on two weaknesses of the method of forecasting applied in (a)(i) and (a)(ii) above. (2 marks)

(b) The following information was extracted from the financial statements of a manufacturing company:

	Sh.
Average total debtors outstanding	48,000
Raw materials consumption	440,000
Total production cost	1,000,000
Total cost of sales	1,050,000
Sales for the year	1,600,000
Value of average stock maintained:	
Raw material	32,000
Work in progress	35,000
Finished goods	26,000
Number of days in a year	365
Average period of credit allowed to suppliers	16 days

Required:

(i) The operating cycle in days. (6 marks)

(ii) The amount of working capital required. (2 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Bundacho Ltd. generated Sh.50 million profit after-tax in the previous financial year. The firm adopts 40% payout ratio as its dividend policy. The total number of issued ordinary shares are 10,000,000.

The company has a potential investment opportunity. If undertaken, dividends are expected to grow at the rate of 10% each year for the first 3 years and then stabilise at the rate of 5% each year thereafter in perpetuity.

The investor's minimum required rate of return is 18%.

Required:

The current intrinsic value of the share. (6 marks)

(b) A firm issued 10% preference shares to raise funds. The shares have a par value of Sh.100 each and are currently selling at Sh.110 each.

The minimum required rate of return by the investors is 8%.

Required:

Explain whether the share is overvalued or undervalued by the market. (4 marks)

(c) Mwarakaya Ltd. is considering the acquisition of a new machine to replace the existing machine currently being used in production processes. The existing machine was acquired 2 years ago at a cost of Sh.2,000,000. It was originally estimated to have a useful life of 5 years with no salvage value.

A critical evaluation of the machine now shows that the machine is usable for another 5 years with a salvage value of Sh.250,000 at the end of this period. The disposal value of the existing machine is currently estimated at Sh.1,250,000.

The new machine is estimated to cost Sh.3,140,000 and its estimated salvage value is Sh.1,000,000 at the end of its useful life of 5 years. The new machine will also require an additional investment in working capital of Sh.650,000 at the start of the asset's useful life.

The investment in working capital will however be recovered at the end of the 5 years useful life.

The following information relates to the estimated earnings before depreciation and tax (EBDT) over the coming five-year period for the two machines.

Year	New machine Sh.	Existing machine Sh.
1	1,400,000	800,000
2	1,350,000	700,000
3	1,300,000	750,000
4	1,450,000	650,000
5	1,200,000	600,000

The cost of capital is 10% and the firm applies the straight line method of depreciation.
The corporate tax rate is 30%.

Required:

Using the net present value (NPV) technique, advise the company's management on whether to replace the existing machine. (10 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Explain the following terms as used in the bond market:

(i) Yield-to-maturity (YTM). (2 marks)

(ii) Yield-to-call (YTC). (2 marks)

(b) Kaoyeni Limited has issued a Sh.10,000 par value 10-year bond with a coupon rate of 12% per annum. The bond is currently trading at Sh.8,830 and is callable at Sh.10,500 after 5 years.

The company pays interest on its bonds semi-annually.

Required:

(i) Yield-to-maturity of the bond. (3 marks)

(ii) Yield-to-call of the bond. (3 marks)

(c) The following data was extracted from Mwakuhenga Limited's financial statements for the year ended 30 June 2016:

	Sh.
Total sales	3,000,000
Variable costs	(900,000)
Contribution	2,100,000
Fixed costs	(1,500,000)
Earning before interest and tax (EBIT)	600,000
Interest	(75,000)
Profit before tax	525,000

Required:

Using the concept of leverage, determine:

(i) The percentage taxable income if EBIT increases by 6%. (3 marks)

(ii) The percentage EBIT if there is a 10% increase in sales. (3 marks)

(iii) The percentage taxable income if sales increase by 8%. (4 marks)

(Total: 20 marks)

Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	8696	.8621	.8475	.8333	.8065	.7813	7576	7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	7695	.7561	.7432	.7182	.6944	.6504	.6104	5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	7938	7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	4348	3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	5194	4972	.4761	.4371	.4019	.3411	2910	2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	3996	.3759	.3538	.3139	.2791	.2218	.1776	1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.1938	.1443	.1084	0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	.0708	.0541	.0320	.0193	.0118	0073
17	8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	1784	.1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	4776	.3751	.2953	.2330	.1842	1460	1160	.0923	.0588	0378	.0304	.0245	0160	.0105	.0046	.0021	.0010	0005
30	7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	0014	0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1-\frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3 2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4 1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2 5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2 8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3 2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2 9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3 0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5 5755	5.0916	4.6755	4.0013	3.4834	3 0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3 1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5 8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10 5940	9.8181	9 1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3 5458	3 1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3 5640	3 1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4 9789	4.1601	3.5693	3 1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9 7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3 1250
50	39.1961	31.4236	25.7298	21 4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	3.5541	4 9995	4.1666	3 5714	3 1250
60	44 9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9 9672	8.3240	7.1401	6.6651	6.2402	5 5553	4.9999	4.1667	3 5714	3 1250

KASNEB

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 25 May 2016. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Explain four principles of capital budgeting. (8 marks)

(b) A firm is considering the following investment projects:

	Cash flows (Sh.)			
Project	Year 0	Year 1	Year 2	Year 3
A	1,000,000	500,000	500,000	-
B	1,000,000	-	650,000	850,000
C	1,000,000	300,000	500,000	1,000,000
D	1,000,000	800,000	400,000	400,000

The firm's opportunity cost of capital is 15%.

Required:

(i) Rank the projects using payback period method. (3 marks)

(ii) Rank the projects using net present value (NPV) method. (3 marks)

(c) Chigiri Ltd. is a private company which intends to be listed in the securities exchange. The company has recently made a dividend issue of Sh.3.20 per share. This dividend is expected to grow at the rate of 15% per annum for 2 years and then drop to12% per annum for the next 3 years. Thereafter, the dividend will grow at 6% per annum indefinitely. The required rate of return is 11%.

Required:

The intrinsic value of the share. (6 marks)

(Total: 20 marks)

QUESTION TWO

(a) The existing capital structure of Mwarakaya Limited is given as follows:

	Sh. "000"
Ordinary share capital (Sh.100 par value)	40,000
Reserves	15,000
12% debentures (Sh.100 par value)	25,000
10% preference share capital (Sh.20 par value)	20,000
	100,000

Additional information:

1. Ordinary shares of Mwarakaya Limited are currently selling at Sh.80 each.
2. The 12% debentures and 10% preference shares are currently selling at Sh.90 and Sh.30 respectively.
3. The most recent ordinary dividend paid by the company is Sh.2.00. This is expected to grow at the rate of 10% each year in perpetuity.
4. The corporate tax rate is 30%.

Required:

The weighted average cost of capital (WACC). (6 marks)

(b) The following information relates to the dividend per share (DPS) for Zomollo Ltd.:

Earnings per share (EPS) for year 2016	Sh.6.00
Dividend per share (DPS) for year 2015	Sh.2.40
Target payout ratio	0.60
Adjustment rate	0.70

Required:
Using the Lintner model, predict the dividend per share for the year ended 31 December 2016. (3 marks)

(c) James Chiwende is considering the purchase of a 4-year Sh.1,200,000 par value bond. The bond has a coupon interest rate of 10% per annum.

The investor's required rate of return is 8%.

Required:
The current value of the bond. (3 marks)

(d) Mwatata Ltd. currently operates with terms of net 80 days. The firm's average investment in accounts receivable amount to Sh.4,400,000 per annum. Eighty per cent of the firm's sales are always on credit. The company is considering introducing terms of 2/20 net 90 days.

The relaxation of terms of sale will increase the firm's total sales by 60%. All cash customers and 40% of the credit customers will take advantage of the cash discount. The average collection period will increase to 80 days up from the current average collection period of 72 days. Bad debts are expected to remain at 3% of credit sales.

Inventory levels are estimated to be 5% of the firm's turnover and creditors will increase by Sh.1,000,000.

Gross margin on sales is 40%. The cost of capital is 16%. Corporate tax rate is 30%.

Assume 360 days in a year.

Required:
Advise the management of Mwatata Ltd. on whether to switch to the new credit policy. (8 marks)

(Total: 20 marks)

QUESTION THREE

(a) The following data was extracted from the financial statements of Jaribuni Limited for the year ended 31 December 2015:

	Sh. "millions"
Cash and cash equivalents	200
Fixed assets	567
Sales (credit)	2,000
Net income	100
Current liabilities	211
Notes payable to bank	40
Current ratio	3:1
Debtors collection period	40.55 days
Return on equity	12%

Assume 365 days in a year.

Required:

(i) Accounts receivable. (2 marks)

(ii) Current assets. (2 marks)

(iii) Return on total assets. (2 marks)

(iv) Equity. (2 marks)

(v) Quick ratio. (2 marks)

(b) Manjewa Limited maintains a minimum cash balance of Sh.2,000,000. The standard deviation of its daily net cash flow is estimated at Sh.22,000. The transaction cost of buying and selling of marketable securities is Sh.60 per transaction. The rate of interest for the marketable securities is 5% per annum.

Assume 365 days in a year.

Required:
Using the Miller-Orr cash management model, determine:

(i) The spread. (5 marks)

(ii) The upper cash limit. (2 marks)

(iii) The return point. (3 marks)
(Total: 20 marks)

QUESTION FOUR

(a) Highlight four shortcomings of financial deepening. (4 marks)

(b) (i) Define the term "franchising". (2 marks)

(ii) Suggest four reasons why franchising could be considered as an alternative source of finance to a company. (4 marks)

(c) Ngoba Ltd. has just paid an annual dividend of Sh.38 per share. The management of the company has a target to increase the market share value to Sh.800 per share by considering appropriate investment policies. Shareholders expect a return on investment of 12%.

Required:
The annual expected growth rate. (5 marks)

(d) Laika Ltd. has identified five investment projects with the following details:

Investment project	Initial outlay (Sh. "millions")	Net present value of investment (Sh. "millions")
A	120	24.0
B	160	43.2
C	100	17.0
D	90	21.6
E	110	19.8

Additional information:
1. None of the investment projects could be delayed.
2. Amount available for investment is limited to Sh.300 million, therefore, the company cannot undertake all the investment projects.
3. All the five projects are divisible.

Required:
Advise the management of Laika Ltd. on the most appropriate investment projects to undertake. (5 marks)
(Total: 20 marks)

QUESTION FIVE

(a) Discuss four principles of Islamic financing. (8 marks)

(b) Highlight four factors that could be taken into account when making dividend decisions. (4 marks)

(c) (i) The agency problem could be resolved using goal congruence.

Explain the term "goal congruence". (2 marks)

(ii) One of the ways creditors could protect themselves against the inherent risk that might arise from agency conflict is through adopting restrictive covenants.

With reference to the above statement, describe three restrictive covenants in a debt contract. (6 marks)
(Total: 20 marks)

....

Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	6772	.8696	.8621	.8475	.8333	.8065	.7813	7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	5739	.5407
3	9706	.9423	.9151	8890	.8638	.8396	.8163	.7938	7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1-\frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

KASNEB

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 25 November 2015. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) Highlight three financial instruments that are traded in money markets. (3 marks)

(b) Explain the following theories in relation to valuation of financial assets:

(i) Fundamental theory. (3 marks)

(ii) Random walk theory. (3 marks)

(c) Ngatata Limited has issued a 20-year bond with a nominal value of Sh.1,000 and a coupon annual rate of 9%. Coupon payments are made semi-annually in arrears. The yield to maturity of the bond is 12% per annum.

Required:

(i) The value of the bond. (3 marks)

(ii) The new value of the bond, if yield to maturity goes down to 8% per annum. (2 marks)

(d) Rematex Limited's earnings have been growing at the rate of 18% per annum. This growth is expected to continue for 4 years, after which the growth rate will fall to 12% per annum for another 4 years.

Thereafter, the growth rate is expected to be 6% in perpetuity. The company's last dividend paid was Sh.2. The investors' required rate of return on the company's equity is 15%.

Required:

The intrinsic value of the share. (6 marks)

(Total: 20 marks)

QUESTION TWO

(a) Summarise four advantages of debentures over preference shares. (4 marks)

(b) Wendy Limited has the following capital structure:

Debt	35%
Equity	50%
Preference shares	15%

The management of the company has provided the data below:

Bond yield to maturity	9%
Corporate tax rate	30%
Growth rate of ordinary dividends	9%
Market price of one ordinary share	Sh.30
Dividend for one ordinary share	Sh.1.20
Market price of one preference share	Sh.100
Floatation cost of one preference share	Sh.2.00
Dividend for one preference share	Sh.8.50

Required:

The company's weighted average cost of capital (WACC). (6 marks)

(c) Cindy Ltd. currently gives credit terms of net 30 days. The company's average annual sales amount to Sh.120 million. The average collection period is 45 days. The management intends to increase the credit period to net 60 days. This plan is expected to increase sales by 15 per cent. After the change in credit terms, the average collection period is expected to be 75 days. Variable costs are 80% of sales. The company's required rate of return on receivables is 20%.

Corporate tax rate is 30%.

Assume a 360 days year.

Required:
Advise the management of Cindy Ltd. on whether to relax its credit terms. (6 marks)

(d) The following data was extracted from the financial statements of Kapecha Limited as at 30 September 2015:

	Sh."million"
10% preference shares (Sh.10 par value)	16
Ordinary shares (Sh.10 par value)	16
	32
Retained earnings	28
	60
15% debentures	48
	108

The company's net profit before interest was Sh.80 million. The company's dividend pay-out ratio was 50%. Corporate tax rate is 30%.

Required:
Dividend per share (DPS). (4 marks)
(Total: 20 marks)

QUESTION THREE

(a) The following information relates to Mongwe Limited for the year ended 31 October 2015:

Earnings yield	25%
Dividend for the year	10% of share nominal value
Nominal value per share	Sh.40
Market price per share	Sh.150

Required:
(i) Earnings per share (EPS). (2 marks)

(ii) Dividend cover. (2 marks)

(iii) Price-earnings (P/E) ratio. (2 marks)

(b) The following details relate to a capital project in XYZ Limited:

Project cost	Sh.65,000,000
Annual cash flows (after tax)	Sh.21,000,000
Project economic life	5 years
Required rate of return	12%

Required:
Assess the suitability of the capital project using the following methods:

(i) Internal rate of return (IRR). (5 marks)

(ii) Profitability index (PI). (3 marks)

(c) Nile group of hotels is considering the acquisition of Victoria hotel at a cost of Sh.200 million. The group of hotels' cost of capital is currently 16% due to its high gearing level. Victoria hotel has no debt.

As a result of this acquisition, the cost of capital for Nile group of hotels will drop to 12%. Total cash flows will also increase by Sh.25 million per annum in perpetuity.

Required:

(i) Using the net present value (NPV) approach, advise the management of Nile group of hotels on the acquisition of Victoria hotel. (3 marks)

(ii) If the acquisition was funded by borrowing so that there is no impact on gearing after acquisition and the cost of capital was not reduced, advise the management of Nile group of hotels whether to proceed with the acquisition of Victoria hotel. (3 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Fila Ltd. intends to raise finance as follows:

Debenture: Raise Sh.100 million through a debenture issue. Each debenture will have a face value of Sh.1,000 and will be issued at 2% floatation cost and a discount of Sh.60. The coupon rate will be 10% with a maturity period of 10 years.

Equity: The firm will raise Sh.100 million from ordinary shares. The current level of dividend is Sh.5 per share and this has been growing at 10% per annum. The current market price per share is Sh.40 and floatation cost will be 5% of the market price.

Long term debt: Raise Sh.20 million long-term debt at par with an interest rate of 10% per annum.

Corporate tax rate is 30%.

Required:

The marginal cost of capital (MCC) of Fila Ltd. (8 marks)

(b) The following information was extracted from the financial statements of Tana Enterprises Ltd. for the year ended 31 December 2013 and 31 December 2014:

Statement of financial position

	2014 Sh."million"	2013 Sh."million"
Assets:		
Non-current assets	1,850	1,650
Depreciation	(350)	(225)
Net non-current assets	1,500	1,425
Intangible assets	150	150
Current assets:		
Inventory	330	230
Accounts receivable	220	170
Cash	100	90
Total current assets	650	490
Total assets	2,300	2,065
Equity and liabilities:		
Ordinary share capital (Sh.2 par value 100 million shares issued)	200	200
Additional paid in ordinary share capital	325	325
Retained earnings	550	470
Ordinary shareholders' equity	1,075	995
Preference share capital (10%, Sh.100 par value)	150	150
Long-term liabilities:		
Long-term debt	625	540
Deferred tax	100	80
Total long-term liabilities	725	620

	Sh."million"	Sh."million"
Current liabilities:		
Accounts payable	85	105
Accruals	65	85
Current portion of long-term debt	75	-
Short-term bank notes	125	110
Total current liabilities	350	300
Total equity and liabilities	2,300	2,065

Statement of comprehensive income

	2014 Sh."million"	2013 Sh."million"
Net sales	3,500	2,990
Cost of goods sold	2,135	1,823
Selling, general and administrative expenses	1,107	974
Operating profit	258	193
Net interest expense	74	64
Income from operations	184	129
Income taxes	55	38
Net income	129	91
Preference dividends	15	15
Net income available for ordinary shareholders	114	76
Dividends declared	40	30

Assume that a year has 365 days.

Required:
Compute and interpret the following ratios for the year ended 31 December 2014:

(i) Cash conversion cycle. (6 marks)

(ii) Equity turnover. (2 marks)

(iii) Fixed charge cover. (2 marks)

(iv) Return on capital. (2 marks)
(Total: 20 marks)

QUESTION FIVE

(a) Distinguish between "required rate of return" and "expected rate of return". (4 marks)

(b) Discuss three contracts that are made through Islamic financial instruments. (6 marks)

(c) Summarise six benefits of the integrated financial management information system (IFMIS). (6 marks)

(d) Makata Limited intends to invest its surplus funds in shares with the following return expectations:

Economic condition	Probability	Share returns
Boom	0.20	40%
Average	0.60	15%
Recession	0.20	-10%

Required:
Using the coefficient of variation, assess the risk level associated with the investment. (4 marks)
(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	9615	.9524	.9434	.9346	9259	.9174	.9091	.8929	8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	7695	.7561	.7432	7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	2910	.2495	.2149
6	9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	0623	0462
11	.8963	8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	2317	.1945	.1635	.1161	.0829	0703	.0596	.0431	.0313	.0168	.0092	.0051	0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	0334	.0196	0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	.0053	0037	.0026	.0013	.0007	.0002	.0001	*	*
50	.6080	.3715	.2261	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	0001	*	*	*	*	*	*

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

KASNEB

CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

PILOT PAPER

September 2015. **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a) "Provision for depreciation is an internally generated source of finance to a company".

Explain the basis upon which provision for depreciation is a source of finance to an organisation. (4 marks)

(b) MM Company Ltd. is contemplating raising additional finance for an expansion programme. The company is considering Sh.50 million for this expansion programme. The company's existing capital structure is given below:

	Sh."000"
Ordinary share capital (Sh.20 par)	60,000
10% debenture capital	25,000
12% preference share capital	15,000
Reserves	50,000
	150,000

Two alternative financing options available to the company are given as follows:

Option I
Issue new ordinary shares at par to raise all the desired funds.

Option II
Issue new ordinary shares at par to raise Sh.30 million and the balance will be raised through the issue of 15% debentures.

The management are optimistic that this investment will enable the company to generate annual operating profit (EBIT) whose forecasted values in different states of nature and their probability of occurrence are given as follows:

State of Nature	Probability	Operating profit (EBIT)
Good	0.4	20,000
Moderate	0.25	15,000
Poor	0.35	10,000

The firm pays corporation tax at the rate of 30%.

Required:

(i) Determine the level of expected operating profit (EBIT) and expected earnings per share at the point of indifference between the firm's earning under financing options I and II. (6 marks)

(ii) Determine the range of expected operating profit within which each financing option will be recommended (Hint: a graph may be used to answer this question). (6 marks)

(c) With reference to (b) above, indicate the financing option you would recommend assuming that the company's expected operating profits are:

(i) As forecasted by the organisation. (1 mark)

(ii) Sh.6,000,000 per annum. (1 mark)

(iii) Sh.15,000,000 per annum. (2 marks)

(Total: 20 marks)

QUESTION TWO

(a) In relation to financing of firm's activities, distinguish between the term "capital structure" and financial structure". (3 marks)

(b) The management of Swara Ltd. is considering replacing an existing machine which was bought 3 years ago at a cost of Sh.20 million. The machine was expected to have a useful life of 5 years with no resale value at the end of this period. A critical evaluation of this asset shows that the existing machine is usable for another five years at the end of which resale value is estimated at Sh.2 million. The current disposal value of the existing machine is estimated at Sh.10 million.

The new machine is not locally available. The management expect to import this machine at a cost of Sh.40 million. Installation cost of this machine is estimated at Sh.500,000.

Import duty payable and freight charges are estimated at Sh.300,00 and Sh.200,000 respectively. This machine is expected to have a useful life of five years, at the end of which resale value is estimated at Sh.5 million.

This investment is expected to lead to increased sales. To support increase in sales, the firm will require an extra investment in working capital at the beginning of the new machine's useful life. Inventory balance is expected to increase by Sh.800,000, debtors balance will increase by Sh.700,000 and creditors balance will increase by Sh.1,000,000.

However, the firm will require an extra investment in working capital at the end of the second year of Sh.250.000. The total investment in working capital will be recovered at the end of the machine's useful life.

The earnings before depreciation and tax to be generated by each asset during each year are given as follows:

	Earning before depreciation and tax (EBDT)	
Year	**New machine Sh."000"**	**Existing machine Sh."000"**
1	70,000	50,000
2	75,000	55,000
3	85,000	60,000
4	80,000	55,000
5	70,000	65,000

Additional information:

1. The new machine shall require an overhaul at the end of third year. The overhaul cost is estimated at Sh.2 million. The cost will be amortised separately on a straight line basis.
2. The firm provides for depreciation on all their non-current assets on a straight line basis.
3. The firm pays corporation tax at the rate of 30%.
4. The firm's capital structure which is optimal comprises of 70% equity and 30% debt. The cost of equity is 10% and before tax cost of debt is 8%.

Required:

Using the net present value technique, advise on whether the firm should replace the existing machine. (15 marks)

(c) State two limitations of the net present value method. (2 marks)

(Total: 20 marks)

QUESTION THREE

(a) Briefly explain how Islamic finance differs from conventional finance. (6 marks)

(b) Ruiru Tanners Ltd. has a total of Sh.100 million invested in net assets as at the end of December 2014. The firm intends to increase its production capacity during the year 2015 by Sh.100 million. The company utilises debt, preferred stock and equity capital within its capital structure. Several alternative financing arrangements are available, namely;

- The company can issue 9% debentures with a par value of Sh.100 each at an issue price of Sh.90 each (market price). Maximum amount available is Sh.20,000,000. Any extra debt finance will be raised through the issue of 12% debentures at Sh.960 each. The par value of this debenture is Sh.1,000 each.
- The company can issue additional 15% preference shares with a par-value of Sh.50 at Sh.75 each.
- The company can issue new ordinary shares at the current market price of Sh.88 per share. Floatation cost equal to Sh.8 per share sold. The company's ordinary shareholders have consistently enjoyed a dividend whose annual growth rate on average has been 10% and this is expected to continue into the foreseeable future. The company's earning per share this year is Sh.10 and adopts a constant dividend payout ratio of 40% each year.
- The company can generate Sh.10 million from the internal sources to finance this expansion programme.

Additional information:

1. The company pays corporation tax at the rate of 30%.
2. The firm's existing capital structure which is considered to be optimal is given below:

	Sh."000"	Sh. "000"
Debt capital:		
6% debenture capital	10,000	
8% term loan	20,000	30,000
Preference shares (Sh.50 par value)		30,000
Ordinary shares (Sh.5 par value)	15,000	
Retained earnings	25,000	40,000
		100,000

Required:

(i) The amount of funds to be raised from each source during the year 2015 so as to maintain the firm's existing optimal capital structure. (3 marks)

(ii) The number of ordinary shares to be issued to raise desired external equity. (2 marks)

(iii) The levels of financing at which marginal cost of capital changes (Hint: break points in weighted marginal cost of capital curve). (2 marks)

(iv) The firm's weighted marginal cost of capital if it were to raise only Sh.20 million. (3 marks)

(v) The firm's weighted marginal cost of capital for the funds to be raised during the year 2015 for the three levels of financing. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) A Ltd. is considering taking over B Ltd. The forecasted annual net operating cash flows to be generated by the target firm are given as follows:

Year	Net cash flow (NCF) Sh."million"
1	5
2	8
3 – 7	10
8 – 10	15
11 – α	12

The firm's minimum required rate of return is 5% above the risk free rate of return. The risk free rate of return 15%.

Required:

The maximum price payable by A Ltd. to acquire B Ltd. (6 marks)

(b) Shafana Ltd. currently operates with terms of net 72 days. The firm's average investment in accounts receivable is Sh.2,400,000 per year. Eighty percent of the firm's sales are always on credit. The company is considering introducing terms of 2/20 net 90 days.

The firm's total sales per annum will increase by 50%. All cash customers and 40% of credit customers will take advantage of the cash discount.

Average collection period will increase to 80 days. Gross margin on sales is 40% while the cost of capital is 16%.

Required:
Advise the company on whether to switch to the new credit policy (Assume a year has 360 days). (6 marks)

(c) The shares of Bidii Ltd. are currently selling at Sh.60 each at the securities exchange. Bidii Ltd.'s price earning ratio is 6 times. The company adopts a constant 40% payout ratio as its dividend policy. It is predicted that the company's dividends will grow at an annual rate of 20% for the first three years, 15% for the next 2 years and thereafter at a constant rate of 10% per annum in perpetuity. The investor's minimum required rate of return is 12%.

Required:
(i) Current intrinsic value of the shares of Bidii Ltd. (6 marks)

(ii) Advise a prospective investor whether or not to buy shares of Bidii Ltd. (2 marks)
(Total: 20 marks)

QUESTION FIVE
(a) The most recent statement of financial position for Upendo Ltd. is presented below:

Upendo Ltd.
Statement of financial position
As at 30th November 2014

	Sh. "000"		Sh."000"
Inventory	2,000	Trade creditors	2,200
Debtors	3,000	Accrued expenses	2,200
Cash at bank	3,800	Long-term debt	8,800
Fixed assets (NBV)	13,200	Ordinary shares	2,200
		Retained profit	6,600
	22,000		22,000

The company is about to embark on an advertising campaign which is expected to raise sales from their present level of Sh.27.5 million to Sh.38.5 million by the end of the next financial year ended 30 November 2015.

The firm is presently operating at full capacity and therefore will have to increase its investment in both current and fixed assets to support the projected level of sales. It is estimated that both categories of assets will rise in direct proportion to the projected increase in sales.

For the year just ended, the firm's after tax profit margin was 6% but is expected to rise to 7% of projected sales. The firm adopts a stable predictable dividend policy. The ordinary dividend payable for the year ended 30 November 2015 is expected to increase by 10% from the last year's dividend of Sh.1 million.

Upendo Ltd's trade creditors and accrued expenses are expected to vary directly with sales. In addition, long term debt financing will be used to finance next year's operations that are not forthcoming from other sources.

Required:
(i) Estimate the amount of additional funds to be raised through long term debt financing. (4 marks)

(ii) Prepare a forecast statement of financial position as at 30 November 2015. (6 marks)

(iii) Using the results obtained in (a) (i) and (ii) above, compute and interpret the following financial ratios for the year ended 30 November 2015:

(a) Return on equity. (2 marks)
(b) Total assets turnover. (2 marks)
(c) Capital gearing ratio. (2 marks)

(b) (i) Define the term financial innovation. (1 mark)

(ii) Highlight any three factors responsible for financial innovation. (3 marks)
(Total: 20 marks)

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