

07737891

THURSDAY: 25 April 2024. Morning Paper.

Time Allowed: 2 hours.

This paper is made up of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks. Do NOT write anything on this paper.

FUNDAMENTALS OF FINANCE

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1.	In the functio	context of finance functions, which one of the following BEST describes the routine	role of finance			
	Δ	Addressing one-time financial issues				
	R.	Day-to-day financial operations				
	D. C	Strategic financial planning				
	D.	Financial decision making for maio	(2 marks)			
	D.		(2 marks)			
2.	Which	Which one of the following is a non-financial goal of a firm?				
	А.	Maximising shareholder wealth				
	В.	Achieving sustainable growth				
	С.	Maximising profits				
	D.	Increasing market share	(2 marks)			
	-					
3.	In agen	icy theory, who is typically considered the " PRINCIPAL "?				
	A.	Externál auditors				
	B.	Government regulators				
	C.	Shareholders				
	D.	Management	(2 marks)			
4.	Which	Which agency relationship involves conflicts related to the risk-return trade-off in investment decisions?				
	А.	Ordinary shareholders and management				
	В.	Shareholders and debenture holders				
	С.	Shareholders and external auditors				
	D.	Shareholders and government	(2 marks)			
5.	What is	s the key difference between financial accounting and management accounting?				
	А.	Both focus on internal decision-making				
	В.	Financial accounting is more future-oriented				
	C.	Financial accounting is primarily for external reporting				
	D.	Both use the same set of accounting principles	(2 marks)			
6.	What is	s the common cause of conflict between shareholders and debenture holders?				
	А.	Dividend distribution				
	B.	Voting rights				
	C.	Capital structure decisions				
	D.	Strategic business planning	(2 marks)			
7.	How de	oes an increase in the current ratio (current assets/current liabilities) affect liquidity?				
	А.	Improves liquidity				
	B.	Reduces liquidity				
	C.	No impact on liquidity				
	D.	Increases profitability	(2 marks)			

8.	A small business needs funds for a project with a relatively short duration. Whi suitable in this situation?	ch source of finance is the MOST
	A. Long-term bank loan	
	B. I rade credit	200
	D. Venture capital	(2 marks)
9.	Which of the following is an example of internally generated funds?	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	A. Bank loan	\sqrt{O}
	B. Sale of stocks	
	C. Retained earnings	
	D. I rade credit	(2 marks)
10.	Which one of the following is NOT a typical source of financing for a new sr (SME) owner?	nall and medium sized enterprises
	A. Personal savings and assets	
	B. Loans from family and friends	
	C. Dank toans D. Venture capital investment	(2 marks)
		(2 marks)
11.	A business angel investor primarily seeks	
	A. High security over their investment	
	B. Regular dividends from the invested company	
	C. Long-term capital appreciation through an exit strategy	
	D. Direct involvement in the damy operations of the company	(2 marks)
12.	Trade credit allows small and medium enterprises (SMEs) to	
	A. Borrow money from a bank	
	B. Delay payment to suppliers for goods or services	
	C. Sell assets to cause capital	
	D. Issue bonds to investors	(2 marks)
13.	Leasing equipment instead of buying it has an advantage of	
	A. Higher depreciation tax deduction	
	B. Increased ownership of assets	
	C. Reduced upfront capital investment	
	D. Greater flexibility in upgrading equipment	(2 marks)
14.	Marcos Kiraithe, an SME proprietor, is considering factoring their outstandin However, they are concerned about the potential fees and loss of control over the	ng invoices to improve cash flow. eir receivables.
	Which of the following options would be the MOST attractive to them?	
	A. Full recourse factoring with a high discount rate	
	B. Non-recourse factoring with a low discount rate	
	C. Invoice discounting with immediate access to funds	
	D. Supply chain financing with extended payment terms	(2 marks)
15.	Which one of the following challenges is NOT typically faced by small and maccessing finance?	edium sized enterprises (SMEs) in
	A. Complex and lengthy loan application processes	
	B. High risk perception by lenders due to limited operational history	
	C. Lack of adequate financial information and documentation	(2 montrs)
	D. Stringent regulatory requirements imposed by infancial institutions	(2 marks)
16.	Karibu Digital Ventures, an SME in the technology sector, is struggling to attract a proven track record. Which of the following strategies could improve their c (VC) funding?	ct venture capital due to its lack of hances of securing venture capital
	A. Focus on increasing profitability in the short term	
	B. Develop a strong business plan with clear exit strategies for investors	
	C. Reduce research and development (R&D) spending	
	D. Increase reliance on bank loans	(2 marks)

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 John Abdul, an SME owner, is concerned about their reliance on trade credit from suppliers. Whic following potential drawbacks of trade credit should be of MOST concern? A Early payment discounts offered by suppliers 				ich of the			
	B. C.	Increased de Improved rel	pendence on suppli- ationship with supp	ers for financing liers		2	(2 marks)
19	D. Dotorm	ing the present	t value of the follow	ring auch flaws, given a	discount rate of 1/	10/	(2 11101 KS)
16.	Determ	ine the present	value of the follow	ing cash nows, given a		+70.	
	Year:	0	l	2	3	4	
	Sh:	0	Sh.1,000,000	Sh500,000	Sh.2,000,000	Sh600,000	
	A. B. C.	Sh.1,214.850 Sh.1,487,150 Sh.1,601,850)))				
	D.	Sh.1,710,150)	Ô)		(2 marks)
19.	Duncan He will Sh.120, have at A. B. C.	korir is plan invest Sh.50, 000 each year the end of 20 Sh.3,790,000 Sh.4,556,760 Sh.4,046,550	ning to make an ad 000 each for the n for the remaining years?)	ditional investment at ext five years, there at 10 years. The rate of	the end of each yea fter Sh.80,000 each return is 9 percent.	ar for his retirement in year for the next 5 How much will Dur	n 20years. years and ncan Korir
	D.	Sh.4,752,550) 1	0			(2 marks)
20.	Chelaga expects achieve A. B. C. D.	at Wamai wou a return on ir her goal. Sh.64,910 Sh.53,720 Sh.72,190 Sh.62,040	uld like to have an avestment of 8%. H	annuity of Sh.400,00 ow much will Chelaga	0 for 20 years when at Wamai need to in	en she retires in 25 nvest at the end of ea	years. She ach year to (2 marks)
21.	Risk is A. B. C. D.	best described The phrase to Risk can be 1 Bond quality Treasury bor	by which of the fol otal risk is synonym reduced by investing ratings do not show nds are free from de	lowing statements? ous with variability of g in one class of securit v the probability that ar fault risk	return from an asse ties 1 issue of bonds fall	et ls into default	(2 marks)
22.	The Uz	uri Corporatio	n had the following	returns on its ordinary	shares over the pas	t 5 years: -7,10, -6, 2	5 and 18.
	Determ A. B. C. D.	ine Uzuri Corj 8.0% and 11 8.2% and 12 8.0% and 12 7.9% and 12	00ration average ret .44% .76% .76% .1%	urn and standard devia	tion of returns over	the past 5 years.	(2 marks)
23.	Which A. B. C. D.	of the followir Operational Operational Financial risl Financial risl	ng risks are common risks, financial risks risks, financial risks ks, human resource ks, economic risks a	n internal risks of a com and economic risks and human resource ri risks and market risks and social and cultural n	npany? isks risks		(2 marks)

- 24. Which one of the following statements **BEST** explains the going concern concept of valuation?
 - A. It considers the long-term potential of the business, taking into account its ability to generate future cash flows, maintain profitability and sustain operations
 - B. This concept is relevant in situations where the business is facing financial distress or is at risk of closure. It provides an estimate of the minimum value that could be realised from selling off the company's assets
 - C. It is used by value investors to identify opportunities where the market price of an asset is lower than its intrinsic value, suggesting a potential investment opportunity
 - D. It reflects the price at which an asset or liability could be exchanged between knowledgeable and willing parties (2 marks)

25. Which one of the following statements is **NOT** an assumption of the constant perpetual growth valuation model?

- A. The required return must be greater than the dividend growth rate
 - B. Dividends grow at a constant rate forever
 - C. The required rate of return can vary
 - D. The firm's risk and its cost of capital remain constant

Use the following information to answer question 26 and question 27.

The Kirui Wanyoike corporation's dividends have been growing at a rate of 7 percent per year over the last 10 years, and this rate is expected to continue in the future. Current dividends per share are Sh.3.85 and its required return is 14.5 percent.

- 26. What is the value of Kirui Wanyoike's share?
 - A. Sh.52.48
 - B. Sh.49.25
 - C. Sh.54.93
 - D. Sh.55.75
- 27. If Kirui Wanyoike's price per share is Sh.40 and its current cash dividend is Sh.3.85 per share and it is growing at a rate of 7% per annum, determine its required return.
 - A. 16.2%
 - B. 15.1%
 - C. 16.6%
 - D. 17.3%
- 28. Determine the price of a Sh.1,000 face value zero coupon bond with a yield to maturity of 14 percent and 20 years until maturity if compounded annually.
 - A. Sh.72.76
 - B. Sh.89.08
 - C. Sh.67.78
 - D. Sh.112.67
- 29. Kibet Wanjohi is holding a 5-year, 10% Sh.100,000 debenture. Determine the value of this debenture today if the cost of capital is 12%.
 - A. Sh.36,048
 - B. Sh.56,740
 - C. Sh.92,788
 - D. Sh.100,000
- 30. Which of the following best describes the advantages of accounting rate of return (ARR).
 - A. It is easy to calculate and understand
 - B. The accounting profits used by ARR can be readily obtained from financial statements and it does not require a lot of details for example cost of capital
 - C. ARR uses accounting profits instead of cash flows, yet accounting profits are affected by accounting estimates and conventions
 - D. It ignores the concept of time value of money
- 31. Which of the following best describes the disadvantage of profitability index (P.I)
 - A. It requires the estimation of the required rate of return or cost of capital which presents practical difficulties and uses cash flows to appraise the projects
 - B. It recognises the concept of time value of money
 - C. It requires the estimation of cash flows which is tedious and is sensitive to discounts rates
 - D. It is not consistent with wealth maximisation principle

Use the following information to answer question 32 to question 34.

A Project with initial cash outlay of sh.340,000,000 promises the following cashflows:

Year	1	2	3	4
Cash inflows Annuity (Sh.000)	120,000	120,000	120,000	120,000
The cost of capital is 15%				

(2 marks)

32.	Evalı	uate the project to establish its payback period using the payback method.	
	A.	2.83	
	В.	2.71	
	C.	2.67	0
	D.	2.33	(2 marks)
22	F 1		
33.	Evalu	uate the above project to establish its worth using net present value (NPV) method.	10
	A. D	Sn.2,600,000	\land
	В.	Sn05,536,000)`
	C.	Sh.342,600,000	(2 1)
	D.	Sh.2,800,000	(2 marks)
34.	Evalı	uate the above project to establish its worth using internal rate of return method.	
	A.	16.1%	
	B.	16%	
	C.	15%	
	D.	15.38%	(2 marks)
35.	A pro	oject with an initial outlay of Sh.30,000,000 promises annuity cashflows of Sh.8,141,760) for years.
	Calcu	ulate the internal rate of return of the project.	
	А.	3.68%	
	В.	16%	
	C.	27.14%	
	D.	15%	(2 marks)
•			
36.	Whic	ch one of the following statements is a capital budgeting challenge in the real world?	
	A.	Optimal resource allocation	
	В.	Uncertain cash flows	
	C.	Enhanced decision making	
	D.	Effective risk management	(2 marks)
37	Whic	shone of the following statements is a component of the cost of equity?	
57.	Δ	Courson rate	
	B.	Dividend vield	
	D. C	Risk-free rate	
	D.	Nisk-nee rate	(2 marks)
	D.	Dest-to-equity fails	(2 marks)
38.	What	t is the cost of debt?	
	А.	Market interest rate	
	В.	Book value of debt	
	C.	Face value of debt	
	D.	Historical cost of debt	(2 marks)
•	D' 1		1. 70.
39.	Biash	hara Ltd. total sales during the year was of Sh.600 million. 90% of total sales were on	credit. If its year end
	recer	vables turnover is 5, determine the average collection period (based on a 365-day ye	ear) and the end year
	recer	vables respectively.	
	A.	365 days and Sh.108,000,000	
	В.	73 days and Sh.120,000,000	
	C.	73 days and Sh.108,000,000	
	D.	81 days and Sh.108,000,000	(2 marks)
40	Ifeco	onomic order quantity (EOO) = 360 units, order costs are sh_5 00 per order and the carry	ving costs are Sh_0.20
	per u	init, what is the usage in units?	
	A	2 592 units	
	B	25.920 units	
	C.	129.600 units	
	D.	18.720 units	(2 marks)
	-		()

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41.	The o withi the ca	credit policy of Kikwetu Ltd is "1.5/10, net 35". At present 30% of the customers take a c n the net period, and the rest pay within 45 days of invoice. What would receivables be if a ash discount?	liscount, 62% pay all customers took
	A.	Lower than the present level	0
	B.	No change from the present level	0
	C.	Higher than the present level	1
	D.	Unable to determine without more information	(2 marks)
42.	When	n a firm needs a short term loan for a specific purpose, the bank loan will likely be a	
	А.	Compensating balance arrangement	
	В.	Revolving credit agreement	
	C.	Transaction loan	
	D.	Line of credit	(2 marks)
43.	The c	cost of equity capital is all of the following EXCEPT	
	А.	The minimum rate that a firm should earn on the equity- financed part of the investment	
	В.	A return on the equity-financed portion of an investment that, at worst, leaves the m	arket price of the
		stock unchanged	-
	C.	By far the most component cost to estimate	
	D.	Generally lower than the before tax cost of debt	(2 marks)
	_	O ^{lu}	· · · · ·
44.	In ca	lculating the proportional amount of equity financing employed by a firm, we should use	·
	А.	The common stock equity account on the firms' balance sheet	
	В.	The book value of the firm \sqrt{O}	
	С.	The current market prices per share of the common stock times the number of shares ou	standing
	D.	The sum of common stock and preferred stock on the balance sheet	(2 marks)
45.	Mark	tet values are often used in computing the weighted average cost of capital (WACC) because	
	A.	This is the simplest way to do the calculation	
	В.	This is consistent with the goal of maximising shareholders' value	
	C.	This is a very common mistake	
	D.	This is the only way of doing it	(2 marks)
46.	Kiwa has a its cu	ra Ltd. has paid Sh.10 per share annual dividend on Sh.100 par value preference shares. Th current market price of Sh.96 per share. The firms' marginal tax rate is 40%. The company rrent capital structure.	e preference share plans to maintain
	The c	component cost of preference shares of Kiwara Ltd. would be	
	А.	6%	
	В.	6.25%	
	С.	10%	
	D.	10.42%	(2 marks)
47			
4/.	A cri	tical assumption of the net operating income (NOI) approach to valuation is	·
	A. D	That the debt and equity levels remain unchanged	
	В.	The dividends increase at a constant rate	
	C.	That cost of equity remains constant regardless of changes in leverage	<i>(</i> 1)
	D.	That the interest expense and taxes are included in the calculation	(2 marks)
48.	Whic	sh one of the following statements is NOT an argument for the relevance of dividends?	
	А.	Informational content	
	В.	Reduction of uncertainty	
	C.	Some investors' preference for current income	
	D.	They are determined by the shareholders	(2 marks)
49.	The f	following statements are true in relation to stock split EXCEPT .	
	А.	Market price per share is reduced after the split	
	B.	The number of outstanding shares is increased	
	C.	Retained earnings are changed	
	D.	Proportional ownership is unchanged	(2 marks)
		1 1	()

50. The dividend-payout ratio is equal to ______.
A. The dividend yield plus the capital gain yield
B. Dividend per share divided by earnings per share
C. Dividend per share divided by par value per share
D. Dividend per share divided by current price per share
(2 marks)

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FUNDAMENTALS OF FINANCE

TUESDAY: 5 December 2023. Morning Paper.

Time Allowed: 3 hours.

(5 marks)

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.

Enumerate **FIVE** factors to consider when choosing a source of finance.

<u>10,000,000</u> 35,0<u>00,000</u>

QUESTION ONE

(a)

· /		U		· · · · ·
(b)	Highlight SIX similarities	(6 marks)		
(c)	The following is the capita	al structure of Mugune Lim	ited as at 31 December 2022.	
		Sh.		
	Ordinary share capital	20,000,000		
	Retained earnings	5,000,000	\mathcal{C}	

Additional information:

- 1. The company has issued 1,000,000 ordinary shares of Sh.20 par value each. The market value of the ordinary share is Sh.30.
- 2. The shareholders expect a dividend of Sh.5 per ordinary share with a growth rate of 10% per annum.
- 3. The corporation tax rate is 30%.

Required:

12% loan note

- (i) The cost of equity. (2 marks)
- (ii) The cost of the 12% loan note. (2 marks)
- (iii) The weighted average cost of capital (WACC) for the company using the market value. (5 marks) (Total: 20 marks)

QUESTION TWO

(a) Highlight **FOUR** reasons for the time preference of money. (4 marks)

- (b) Explain **THREE** regulatory measures that govern Islamic finance. (6 marks)
- (c) Ubunifu company is considering an investment in a new project. The project requires an initial investment of Sh.10 million for equipment, Sh.5 million for inventory and Sh.2 million for installation costs. The equipment will be depreciated using straight line depreciation method over 5 years period with no salvage value. The project is expected to generate sales worth Sh.10 million and incur costs of Sh.3 million at the end of each year for the next 5 years. The corporation tax rate is 30%. Assume a discount rate of 10%.

Required:

(i)	Total initial cash outlay.	(1 mark)
(ii)	Annual net operating cash flows for each year.	(4 marks)
(iii)	Total terminal cash flow at the end of the project.	(2 marks)
(iv)	Determine whether the project is worthwhile using the discounted payback period approach.	(3 marks)

(Total: 20 marks)

OUESTION THREE

Agency costs refer to the costs incurred to safeguard the shareholders' interest. (a)

In relation to the above statement, describe THREE types of agency costs. (6 marks)

(b) Paul Mwangi has borrowed Sh.1,000,000 from a commercial bank at an interest rate of 12% per annum. The loan shall be repaid over a period of five (5) years. The interest on the loan shall be compounded at the end of each year over the five year period.

Required:

- Total amount payable after five years. (2 marks) (i)
- (ii) Total amount payable after five years assuming interest is compounded semi-annually. (2 marks)
- (iii) Total amount payable after five years assuming interest is compounded continuously using the formula:

 $FV = PV \times e^{(i \times t)}$

Where: e = 2.7183i = interest rate per annum t = period

- A manufacturing company, Zoe Limited, is seeking to assess its working capital operating cycle to improve its (c) liquidity management. The following financial data is available for the company:
 - 1. Average inventory Sh.150 million.
 - Average accounts receivable Sh.100 million. 2.
 - 3. Cost of goods sold (COGS) Sh.500 million.
 - Annual sales Sh.750 million. 4.
 - 5. Average accounts payable Sh.75 million.

Assume 365 days in a year.

Required:

	(i)	Explai	n the concept of working capital operating cycle.	(2 marks)
	(ii) Calculate the following components of working capital operating cycle for Zoe Limite		ted.	
		1.	Day sales of inventory (DSI).	(1 mark)
		II.	Day sales outstanding (DSO).	(1 mark)
		III.	Day payables outstanding (DPO).	(1 mark)
	(iii)	Detern	nine the overall working capital operating cycle (in days) for Zoe Limited.	(3 marks) (Total: 20 marks)
QUEST	TION FO	UR		
(a)	Identify	FOUR	causes of business risk.	(4 marks)
(b)	Summa	rise SIX	factors that could influence the dividend policy of a firm.	(6 marks)

The ordinary shares of Bidii Ltd. are currently selling at sh.100 each at the securities exchange. The company's (c) price earnings (P/E) ratio is 10 times. Bidi Ltd. adopts a 60% payout ratio as its dividend policy. It is predicted that the company's earnings and dividends will grow at an annual rate of 15% for the first three years, 10% for the next two years and 6% thereafter in perpetuity. The investors minimum required rate of return is 12%.

Required:

(i)	The initial dividend per share (DPS).	(2 marks)
(ii)	The current intrinsic value of the shares.	(6 marks)

(iii) Advise the investors based on the results in (c) (ii) above on whether to buy or sell the shares of Bidii Ltd. (2 marks)

(Total: 20 marks)

(2 marks)

OUESTION FIVE

- Highlight FOUR characteristics of capital investments decisions. (a)
- (b) Enumerate THREE similarities and THREE differences between "accounting" and "finance".
- (c) Billy Lenz is considering buying shares of Kenfam Limited which are currently selling at the securities exchange for Sh.200 each.

The forecasted market price of each share at the end of one year's holding period and the corresponding probability of occurrence are given as follows:

Economic condition	Probability occurrence	Forecasted market price per share after one year	
Deer	0.20	Sn.	
POOR	0.20	180	
Moderate	0.30	220	
Good	0.30	240	

Required:

The expected rate of returns for Kenfam Limited shares. (i)

The standard deviation of the returns for Kenfam shares. (ii)

Somearenvar

(6 marks)

(5 marks) (5 marks)

(Total: 20 marks)

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FUNDAMENTALS OF FINANCE

TUESDAY: 22 August 2023. Morning Paper.

Time Allowed: 3 hours.

(2 marks)

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 the following type of decisions made in finance:

- (i) Liquidity decisions. (2 marks)
- (ii) Investment decisions.
- (b) In a finance and investment forum, one of the facilitators' noted that "as firms strive to achieve its objectives, at times the objectives may overlap with each other and this might cause conflict".

With reference to the above statement, describe **THREE** overlaps among objectives that could arise in the course of a firm's effort to achieve its objectives. (6 marks)

(c) The capital structure of Mandela Ltd. as at 30 June 2023 was as follows:

	Sh. "000"
Ordinary share capital (Sh.10 each)	186,500
Retained earnings	13,500
10% debenture	200,000
	<u>400,000</u>

The company is considering the acquisition of an investment project that will cost Sh.135 million. In order to finance the investment project, the company would be required to raise additional capital.

Additional information:

- 1. The above capital structure is considered optimum.
- 2. The company can obtain additional debentures at an interest rate of 18% per annum.
- 3. The dividend for the year ended 30 June 2022 was Sh.2.40 per share.
- 4. Dividends are expected to grow at the rate of 8% each year for the foreseeable future.
- 5. Additional ordinary shares can be issued at the securities exchange at a price of Sh.54 per share net of floatation cost amounting to Sh.6 per share.
- 6. Corporations tax rate is 30%.

Required:

Calculate the following:

(i)	Cost of additional debentures.	(1 mark)
(ii)	Cost of retained earnings.	(1 mark)
(iii)	Cost of ordinary shares.	(1 mark)
(iv)	The amount to be financed through equity.	(1 mark)
(v)	The amount of equity to be financed through issue of new ordinary shares if the com the optional capital structure.	pany is to maintain (1 mark)
(vi)	The amount to be raised through debentures.	(1 mark)
(vii)	The marginal cost of capital.	(4 marks) (Total: 20 marks)

QUESTION TWO

(a) With reference to long-term and short-term sources of finance:

((i) State FOUR adva	intages of bills of exchange.	(4 marks)
· •		in ages of other of other anget	(• •••••••)

- (ii) Enumerate **SIX** features of ordinary share capital.
- (b) Baraka Ltd. is considering the acquisition of a new machine estimated to cost Sh.6 million. An additional Sh.280,000 million would be incurred to install the machine.
 - 1. The machine has an estimated economic life of five years with a residual value of Sh.2 million.
 - 2. The projected profit before tax and depreciation is Sh.2.7 million per annum.
 - 3. To support the increased sales, it is estimated that accounts receivable, inventory and accounts payable would increase by Sh.3 million, Sh.1.7 million and Sh.3.4 million respectively.
 - 4. The company uses the straight-line method of depreciation and the cost of capital is 8%.
 - 5. The corporate tax rate is 30% per annum.

Required:

Using net present value (NPV), advise Baraka Ltd. on whether the machine should be acquired. (10 marks)

(Total: 20 marks)

(6 marks)

QUESTION THREE

(a) In relation to time value of money, distinguish between the following terms:

(i)	"Ordinary annuity" and "annuity due".	Δ	(2 marks)
(ii)	"A growing annuity" and "a perpetual annuity		(2 marks)

(b) Maandani Ltd. is considering buying a machine which is expected to generate the following cash flows at the end of each year over the machine's economic life of 5 years:

Year	Cash flows
	Sh.
1	100,000
2	90,000
3	80,000
4	70,000
5	60,000

The cost of capital is 12%.

Required:

Compute the total present value of the cash flows.

(c) John Maneno has computed the profitability index (PI) for a new proposed project to be 1.12. The projects initial cash outlay is Sh.10 million. The project has a useful life of five years. The minimum required rate of return on the project is 16%.

Required:

Compute the following for the project:

(iv)	Internal rate of return.	(3 marks)
(iii)	Net present value.	(3 marks)
(ii)	Payback period.	(3 marks)
(i)	Annual cash inflows.	(3 marks)

(4 marks)

QUESTION FOUR

(a)	Explain THREE	benefits of block	chain technology	to an organisation.
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- (b) Describe **THREE** ways of resolving conflict between shareholders and debenture holders in an organisation. (6 marks)
- (c) Nandwa Ltd. maintains a minimum cash balance of Sh.2,000,000. The variance of the daily cash flows is Sh.100 million. The transaction cost of each marketable security is Sh.80.

The interest rate of a marketable security is 12% per annum. Assume 365 days in a year.

Required:

Using the Miller-Orr model of cash management, determine:

		(Total: 20	marks)
(iv)	The spread.	(2	2 marks)
(iii)	The average cash balance.	(2	! marks)
(ii)	The upper cash limit.	(2	2 marks)
(i)	The return point.	(2	2 marks)

QUESTION FIVE

(a) Differentiate between "time value of money" and "time preference for money". (4 marks)

(b) Masii Ltd. has a cost of equity of 10%. Currently, it has 250,000 ordinary shares which are quoted at the securities exchange at Sh.60 per share. The company's earnings per share is Sh.10 and its expected dividend per share is Sh.5 at the end of the current financial year. The expected net income for the current year is Sh.3 million and the available investment proposals are estimated to cost Sh.6 million.

Using the Modigliani and Miller (MM) model determine:

(i)	The price of a share at the end of the year if dividend is not paid.	(2 marks)
(ii)	The price of a share at the end of the year if dividend is paid.	(2 marks)
(iii)	The value of a firm at the end of the year if dividend is not paid.	(3 marks)
(iv)	The value of a firm at the end of the year if dividend is paid.	(3 marks)
In asses	sing the credit worthiness of customers, a company should obtain information from certain sou	rces.

Required:

(c)

Examine **THREE** sources of credit information that a bank would rely on when assessing a customer for consideration for a loan facility. (6 marks)

(Total: 20 marks)

(6 marks)

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FUNDAMENTALS OF FINANCE

TUESDAY: 25 April 2023. Morning 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 factors that may determine the amount of	of cash to be held by a fin	rm.	(4 marks)
(b)	Outline FOUR underlying principles of Takaful (Islamic)	insurance.		(4 marks)
(c)	The capital structure of Mapato Ltd. is as follows:		Sh."000"	
	Ordinary share capital (par value of Sh.10 each.) 14% preference share capital (par value of Sh.10 each) 20% debentures 16% long-term loan	com	40,000 20,000 6,000 <u>10,000</u> <u>76,000</u>	

Additional information:

- 1. Ordinary shares are currently trading at Sh.15 on the securities market.
- 2. The company has paid a dividend of Sh.2 per share from an earnings per share (EPS) of Sh.6. The dividends are expected to grow annually at the rate of 40% for the foreseeable future.
- 3. The 20% debentures have a par value of Sh.1,000. The market price of the debentures is currently at Sh.950. The debentures have a maturity of ten years.
- 4. The preference shares are currently trading at Sh.14 per share.
- 5. The company's tax rate is 30%.

Required:

Determine the following for Mapato Ltd.:

(i)	The cost of ordinary share capital.	(2 marks)
(ii)	The cost of preference share capital.	(2 marks)
(iii)	The cost of debentures.	(2 marks)
(iv)	The cost of long-term loan (after tax).	(2 marks)
(v)	The company's market weighted average cost of capital.	(4 marks) (Total: 20 marks)

QUESTION TWO

- (a) Explain **THREE** causes of conflict between the government and shareholders. (6 marks)
- (b) Differentiate between "compounding techniques" and "discounting techniques" as used in time value of money. (4 marks)
- (c) Josphat Mwanzia has invested in a portfolio that comprises two stocks; A and B as shown below:

	Stock A	Stock B
Amount invested	Sh.2,000,000	Sh.8,000,000
Expected return	11%	25%
Standard deviation	25%	30%
Correlation coefficient between the rat	es of return of stock "A" and stock	"B" is 0.20.

Required:

	Comp	Compute the following for Josphat Mwanzia:		
	(i)	Expected return of the portfolio.	(3 marks)	
	(ii)	Covariance of the portfolio.	(3 marks)	
	(iii)	Standard deviation of the portfolio.	(4 marks) (Total: 20 marks)	
QUES (a)	STION T Summ	THREE narise FOUR advantages of scrip dividend instead of cash dividend.	(4 marks)	
(b)	Expla	in the following terms as used in valuation:		
	(i)	Going concern value.	(2 marks)	

- (ii) Liquidation value. (2 marks)
- Maktaba Ltd. is considering its capital budget for the year 2024. The following information relates to four (c) mutually exclusive projects that the management is contemplating to undertake:

The projects will generate the following cash inflows:

	PROJECT				
Year	W	Χ	Y	Z	
	Sh."000"	Sh."000"	Sh."000"	Sh."000"	
0	(8,000)	(10,000)	(20,000)	(16,000)	
1	2,000	4,000	- 8,000	6,000	
2	4,000	6,000	12,000	10,000	
3	6,000	6,000	10,000	8,000	

Additional information:

- The company has a capital budget ceiling of Sh.20 million. 1.
- 2. The cost of capital for Maktaba Ltd. is 10%.
- The cash flows are assumed to occur at the end of the year. 3.

Required:

Advise the management of Maktaba Ltd. on which project to undertake using the following investment appraisal methods:

(i)	Net present value (NPV).	(8 marks)
-----	--------------------------	-----------

Profitability index (PI). (ii)

(4 marks) (Total: 20 marks)

OUESTION FOUR

- Explain THREE reasons why it is not advisable for a company to use a bank overdraft as a short-term source of (a) finance. (6 marks)
- (b) Karibu Ltd. has annual sales of Sh.12 million and all sales are on 30 days credit period although customers on average take 10 days more than the credit period to pay.

Additional information:

- The company's gross margin on sales is 40%. The company currently has no bad debts. 1.
- 2. Accounts receivable are financed using a bank overdraft at an annual interest rate of 7%.
- 3. The management has plans to offer an early settlement discount of 1.5% for payment within 15 days and to extend the maximum credit period offered to 60 days.
- 4. The management 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 the customers with the remaining customers taking an average of 60 days to pay.
- Assume 365 days in a year. 6.

Required:

Evaluate whether Karibu Ltd. should adopt the proposed changes in credit policy. (8 marks)

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(c) Modern Appliance Ltd. has recently issued a Sh.1,000, 10% convertible bond. The bond can be converted into 20 ordinary shares at the end of five years. The current market price of the shares of Modern Appliance Ltd. is Sh.30 per share. The price is expected to grow at the rate of 10% per annum. The investor's required rate of return is 14%.

Required:

Determine the current value of the bond.	(6 marks)
	(Total: 20 marks)

QUESTION FIVE

(a)	Explain	the term "bird in the hand dividend theory".	(2 marks)
(b)	Explain	TWO reasons why the financing decisions of an organisation are important.	(4 marks)
(c)	(i)	Outline FOUR challenges encountered by small and medium enterprises (SMEs) in raising ca	ıpital. (4 marks)
	(ii)	Simon Kamala obtained a loan from ABC bank of Sh.2 million. The rate of interest was fix per annum. The loan is to be repaid semi-annually over a period of 3 years.	ed at 12%
		Required:	
		Prepare a loan amortisation schedule over the three year period.	(6 marks)
(d)	Blades currentl	Ltd. issued 15% preference shares to raise funds. The shares have a par value of Sh.100 y sell at Sh.140 each. The investor's minimum required rate of return is 10%.	each and
	Requir	ed:	
	(i)	Determine the current intrinsic value of the share.	(2 marks)
	(ii)	Advise the investor based on whether to buy or sell the share.	(2 marks)

(Total: 20 marks)



FUNDAMENTALS OF FINANCE

TUESDAY: 6 December 2022. Morning 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 THREE limitations of retained earnings as a source of finance.	(3 marks)
(b)	Explain THREE non-financial goals of a firm.	(6 marks)

(c) Heko Ltd. has the following capital structure which is considered optimal:

	Sh."000"
Debt (par value Sh.1,000)	300,000
Preference shares (par value Sh.100)	180,000
Ordinary shares (par value Sh.100)	720,000

Additional information:

- envacon The investors of Heko Ltd. expect earnings and dividends to grow at a constant of 9% in the future. The company has just paid ordinary shareholders dividend of Sh 4.2 per char. 1.
- 2.
- The current market price of ordinary shares of Heko Ltd. is Sh.80 each. The firm will incur a floatation cost of Sh.4 per share to issue new shares 3.
- 4.
- 5. New preference shares can be sold at Sh.105 per share with a dividend of Sh.11 per share and floatation cost of Sh.10 per share.
- 6. The company will issue debenture under the following terms:
 - The coupon rate 12% per annum
 - Discount Sh.30 per debenture
 - Floatation cost Sh.20 per debenture
 - The par value is Sh.1,000
 - Maturity period of ten years
- 7. The corporate tax rate is 30%.

Required:

、 /		(Total: 20 marks)
(iv)	The weighted average cost of capital (WACC) using market value weights.	(4 marks)
(iii)	The cost of debenture capital.	(3 marks)
(ii)	The cost of preference share capital.	(2 marks)
(i)	The cost of ordinary share capital.	(2 marks)

QUESTION TWO

each month.

(a)	Explain the term "venture capitalist" as used in finance.	(2 marks)
(b)	Identify THREE differences between "factoring" and "invoice discounting".	(6 marks)

Erick Nandwa borrowed Sh.250,000 from Pritt Sacco at a monthly interest rate of 3%. The loan is to be (c) amortised using the reducing balance method and be repaid in 6 equal monthly instalments, payable at the end of

Required: Prepare a loan amortisation schedule. (6 marks) AD33 Page 1 Get answers to this Past Paper on someakenya Mobile and Desktop App Call/text/whatsapp 0707 737 890 Out of 3

(d) Paul Kalama is considering investing in a five-year Sh.1,000 par value bond bearing a coupon rate of 7%. Paul Kalama's required rate of return is 8%. The bond is quoted at Sh.950 in the bond market. The bond will be redeemed at par value.

Required:

	(1)	Compute the intrinsic value of the bond.	(4 marks)
	(ii)	Advise Paul Kalama on whether he should purchase the bond based of above.	on your computation in (d) (i)
			(2 marks) (Total: 20 marks)
QUES	STION 1 Outlir	FHREE the FOUR functions of a finance manager.	(4 marks)
(4)	0 0000		(
(b)	Expla	in FOUR chronological steps of dividend payment process.	(4 marks)
(c)	Maku flows	pa Limited intends to invest Sh.32,000,000 in a project which is expected	to generate the following cash

Year	1	2	3	4
	Sh.	Sh.	Sh.	Sh.
Cash flows	15,000,000	10,000,000	9,000,000	8,000,000

The expected scrap value at the end of year 4 is Sh.4,000,000.

The company's cost of capital is 14%.

Required:

(i)

ed: Calculate the internal rate of return of the project. (8 marks) Advise the management on whether to invest in the project or not based on your results in (c) (i) above. (ii) (2 marks)

Highlight TWO advantages of using internal rate of return (IRR) to appraise investment projects. (iii)

> (2 marks) (Total: 20 marks)

(8 marks)

QUESTION FOUR

- (a) Identify FOUR benefits that may accrue to a firm from business crowdfunding. (4 marks)
- (b) Citing THREE reasons, justify why a company should endeavour to maintain a stable dividend payment policy. (6 marks)
- (c) The following balances were extracted from the books of Eaglite Manufacturing Company for the year 2021:

	Beginning of year 2021	End of year 2021	
	Sh."000"	Sh."000"	
Raw materials stock	72,000	96,000	
Work-in-progress	32,000	44,000	
Finished goods	126,000	138,000	
Accounts receivable	218,000	254,000	
Accounts payable	208,000	202,000	

Additional information:

- Annual sales amounted to Sh.4,748 million. 1.
- 2. Cost of production during the year amounted to Sh.2,320 million.
- 3. Raw materials purchased during the year amounted to Sh.1,526 million.
- 4. Annual cost of sales amounted to Sh.2,862 million.
- 5. All sales and purchases made during the year were on credit terms.

Assume that a year has 365 days.

Required:

-				
(*)	a 1 1 1 ·	1 1 0 5 11		(0 1)
(1)	Compute the working conit	al evels for Haghts	Manutacturing Company	(X marks)
(1)				
		5 6	8 1 2	(-)

(ii) The directors of Eaglite Manufacturing Company intend to negotiate for longer credit periods from suppliers of raw materials.

Explain the effect of this action on the working capital cycle.	(2 marks)
	(Total: 20 marks)

QUESTION FIVE

- Highlight TWO benefits and TWO limitations of Islamic finance. (a)
- Identify FOUR ways in which technological risk may affect the operations of a business negatively. (b) (4 marks)
- (c) James mambo intends to purchase either security AX or security BY.

The following information relates to the two securities:

State of economy		Probability	Retu	irns	
	·	·	AX	BY	
			%	%	
Boom		0.5	14	8	
Stable		0.2	16	9	
Recessi	on	0.3	10	12	C
Requir	ed:				10.
(i)	Compute the expected ret	turn of securities AX	and BY.		
(ii)	Compute the standard dev	viation of each of the	e securities A	X and BY.	ear
(;;;;)	Advise James Mambo on	the security to pural	hasa hasad an	the regults obtain	d in (a) (ii) above

Required:

Advise James Mambo on the security to purchase based on the results obtained in (c) (ii) above. (iii)

(2 marks) (Total: 20 marks)

(4 marks)

(6 marks)

(4 marks)

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FUNDAMENTALS OF FINANCE

TUESDAY: 2 August 2022. Morning paper.

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

With regard to sources of finance, explain the following terms: (a)

	(i)	Factoring.		(2 marks)	
	(ii)	Business angel.	S.C.	(2 marks)	
(b)	Analy	se three factors that could influence	the dividend decision of a firm.	(6 marks)	
(c)	Sunlig	th Limited intends to invest in Proj	ect Y or Project Z.		
	The fo	ollowing are expected net cash flow	from the projects:		
		Project	•		
	Veer	$\begin{array}{c} Y \\ Sh \end{array} \begin{array}{c} C \\ Sh \end{array}$			
	1 ear	$(12\ 000\ 000)$ $(10\ 000\ 0)$	00)		
	1	3 000 000 4 000 (000		
	2	3.000.000 3.000.	000		
	3	3,200,000 2,000.	000		
	4	2,000,000 4,000,0	000		
	5	1,000,000 2,000,0	000		
	The company's cost of capital is 12%.				
	Requi	red:			
	(i)	Calculate the profitability index	for each project.	(8 marks)	
	(ii)	Advise the management on the p	roject to invest in.	(2 marks) (Total: 20 marks)	
QUES	STION T	WO			
(a)	Explai	in three causes of conflict between s	hareholders and external auditors.	(6 marks)	
(b)	Citing	three reasons, justify the time prefe	erence value for money.	(6 marks)	
(c)	The fo	ollowing information relates to Mafi	ita Safi Ltd.:		
	Purch	ase of raw materials (all on credit)	6 700		
	Usage	of raw materials	6,500		
	Sale o	f finished goods (all on credit)	25,000		
	Cost o	f sales (finished goods)	18,000		
	Average creditors 1,400				
	Avera	ge raw materials inventory	1,200		
	Avera	ge work in progress	1,000		

Time Allowed: 3 hours.

	Sh."000"
Average finished goods inventory	2,100
Average debtors	4,700
Assume a 365 days year.	

Required:

The length of the operating cash cycle.

(8 marks) (Total: 20 marks)

QUESTION THREE

(a) Explain the following terms as used in valuation of securities:

(i)	Fair value.	(2 r	narks)
(1)	Fair value.	(2 r	narks)

- (ii) Investment value. (2 marks)
- (b) In a finance and investment seminar, one of the facilitators' noted that "Management of debtors is crucial in working capital management".

With reference to the above statement, discuss three factors that might influence the level of debtors in a firm.

(6 marks)

(c) The following is the capital structure of Kenland Ltd.:

Ordinary share capital (par value Sh.100) Preference share capital (par value Sh.100) Debentures (par value Sh.1,000)



Additional information:

- 1. The company has paid ordinary dividend of Sh.2.5. The dividend is expected to grow at a constant rate of 10% in the future and floatation cost of 12% of the market price.
- 2. The current market price of one ordinary share of Kenland Ltd. is Sh.120.
- 3. New preference shares can be sold at Sh.140 per share with a dividend of Sh.15 per share and floatation costs of Sh.8 per share.
- 4. The company pays out all its earning as dividends.
- 5. The company will sell 14% debentures with a maturity of 10 years at Sh.1,100 per debenture.
- 6. The par value of the debenture is Sh.1,000.

Corporate tax rate is 30%.

Required:

(ii)	The cost of preference share capital.	(2 marks)
(iii)	The cost of debenture capital.	(2 marks)
(1V)	The market weighted average cost of capital.	(4 marks) (Total: 20 marks)

QUESTION FOUR

(a) Explain the following terms as used in finance:

(i)	Cryptocurrency.	(2 marks)
(ii)	Block chain technology.	(2 marks)

(b) Islamic finance and investment has experienced substantial and unprecedented growth in recent years.

With reference to the above statement, discuss four Islamic finance drivers. (8 marks)

(c) John Juma borrowed Sh.500,000 on 1 May 2022 from a local bank repayable semi-annually over a two year period. The interest rate on the loan is 8% per annum.

Required: A loan repayment schedule for the two year period.	(4 marks)
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(d) Kikwetu Enterprises is considering purchasing a five year Sh.1,000 par value debenture which is currently trading on the securities exchange is at Sh.950. The debenture has a coupon rate of interest of 12% per annum. Kikwetu Enterprises' required rate of return is 16%.

Required:

(i)	The intrinsic value of the debenture.	(3 marks)
(ii)	Advise Kikwetu Enterprises on whether or not to purchase the debenture.	(1 mark)

(Total: 20 marks)

QUESTION FIVE

- (a) Outline four circumstances under which a company would prefer to use short term debt financing compared to other sources of finance. (4 marks)
- (b) Explain three differences between a firm's "value maximisation goal" and "profit maximisation goal". (6 marks)
- (c) The following information relates to returns of two securities under three states of the economy as follows:

State of	economy	Probability	Return on	Return on	
			security X	security Y	
Boom		0.40	18%	24%	
Normal		0.50	14%	22%	
Recessio	on	0.10	12%	> 21%	
			\sim		
Require	ed:		•		
(i)	Expected retu	urns on security X	and Y. 🔨		(2 marks)
	-	-	~		
(ii)	Standard dev	iation of returns or	seourity X and se	curity Y.	(2 marks)
			X I		
(iii)	Kalama Chiv	uva has invested.	20% in security X	and 80% in sec	urity Y. Determine his expected portfolio
	return.	all'	•		(1 mark)
		c ^O .			
(iv)	Calculate cov	variance of returns	of security X and Y	Y.	(3 marks)
			•		
(v)	Determine th	e portfolio risk as	measured by stand	ard deviation.	(2 marks)
		-			(Total: 20 marks)
	•	•••••••			••••••



FUNDAMENTALS OF FINANCE

TUESDAY: 5 April 2022. Morning paper.

Time Allowed: 3 hours.

(4 marks)

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)	Explai	in two types of financial decisions made in a company.	(4 marks)		
(b)	Discuss four potential causes of conflict between shareholders and the management. (8 marks				
(c)	The m	anagement of Daylight Ltd. is in the process of evaluating the company's dividend policy.			
	The fo	ollowing information is provided:			
	1.	The company paid Sh.1,300,000 million a Wividends in the last financial year.			
	2.	The profit after tax for the last financial year was Sh.3,900,000 million.			
	3.	The company has not issued any preprence shares.			
	4.	The earnings growth rate has been constant at 10% per annum for the past ten years.			
	5.	The expected profits after tax for the current financial year is Sh.5,200,000 million.			
	6. The company anticipates investment opportunities worth Sh.2,800,000 million in the current financial year.				
	7.	The capital structure of the company consists of 70% equity and 30% debt.			
	Requi	ired:			
	The o divide	optimal total dividends for the current financial year if the company wishes to adopt each end policies:	of the following		
	(i)	Residual dividend policy.	(2 marks)		
	(ii)	Constant payout ratio policy.	(2 marks)		
	(iii)	Stable predictable dividend policy.	(2 marks)		
	(iv)	Regular plus extra dividend policy.	(2 marks)		

QUESTION TWO

- Distinguish between an "aggressive" and "conservative" working capital policy of a firm. (a)
- Master Ltd. is a private company which intends to be listed in the Securities Exchange. The company recently paid a (b) dividend of Sh.2.50 per share. This dividend is expected to grow at the rate of 20% for 2 years and then drop to a growth rate of 15% per annum for the next 3 years.

Thereafter the dividend will grow at 10% per annum indefinitely. The required rate of return is 12%.

Required:

The intrinsic value of the company's share.

Salama Limited's capital structure as at 1 October 2020 was as follows: (c)

	Sh."000"
Ordinary share capital (Sh.10 each)	373,000
Retained earnings as at 1 October 2020	27,000
18% debentures	400,000
	800,000

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(Total: 20 marks)

(4 marks)

(6 marks)

The above capital structure is considered optimal. The company is considering the acquisition of an investment project that will cost Sh.270 million. In order to finance the investment project, the company would be required to raise additional capital.

Additional information:

- The company can obtain additional debentures at an interest rate of 18% per annum. 1.
- The dividend for the year ended 30 September 2021 is expected to be Sh.2.40 per share. 2.
- Additional ordinary shares can be issued on the Securities Exchange at a price of Sh.54 per share net of 3. floatation cost amounting to Sh.6 per share.
- Dividends are expected to grow at a rate of 8% each year for the foreseeable future. 4.
- 5. Corporation tax is 30%.

Required:

(i)	Cost of debentures.	(2 marks)
(ii)	Cost of retained earnings.	(2 marks)
(iii)	Cost of ordinary shares.	(2 marks)
(iv)	Amount of money for the investment project to be financed through the issue of new company is to maintain the optimal capital structure.	ordinary shares if the (2 marks)

Amount of money for the investment project to be raised through debentures. (2 marks) (v) (Total: 20 marks)

OUESTION THREE

ION THREE Explain two applications of the time value of money concept. (a)

- (4 marks)
- Citing three reasons, justify why a firm may prefer to raise finance through equity rather than debt finance. (6 marks) (b)
- The following information relates to the forecasted returns of securities A and B and their probabilities during the (c) financial year ending 30 April 2022.

Probability security	Forecasted returns A (%)	Security B (%)
0.15	10	8
0.20	12	10
0.10	8	7
0.15	15	12
0.25	14	10
0.15	9	8

Required:

- The expected return of security A and security B. (i)
- The standard deviation of security A and security B. (ii)
- Advise a potential investor on the security to invest in using relative risk. (iii)

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(4 marks)

(4 marks)

(2 marks)

(Total: 20 marks)

QUESTION FOUR

(b)

(a) Explain four differences between "Islamic banking" and "conventional banking".

mutually exclusive projects that the management is contemplating to undertake:

Delight Limited is considering its capital budgets for the year 2022. The following information relates to three

Project	Initial cash out flows (Sh. "000")		Cash in flows (Sh. "000")						
		Year 1	Year 2	Year 3					
A	(8,000)	2,000	4,000	6,000					
В	(10,000)	4,000	6,000	6,000					
С	(20,000)	8,000	12,000	10,000					

Additional information:

1. The firm has a capital budget ceiling of Sh.20 million.

2. The cost of capital for Delight Limited is 10% per annum.

Required:

Advise the management on the projects to undertake using each of the following investment appraisal techniques.

- (i) Net Present Value (NPV).
- (ii) Profitability Index (IP).

OUESTION FIVE

(a) Identify four factors that might influence the working capital need of a company. (4 marks)

(b) Hazyl Ltd. applies the Baumor's Model to control its cash balances. The firms annual cash requirements are estimated at Sh.4,000,000. It incurs a cost of Sh.20 per transaction when either buying or selling marketable securities in the money market.

The firm's investment in marketable securities guarantees a return of 10% per annum. There are no minimum cash balances.

Optimal cash balance = $\sqrt{\frac{2 \text{ FC}}{\text{i}}}$

Where: F = fixed cost incurred when selling securities to raise cash.

C = Annual cash disbursements.

i = Annual interest earned at the marketable securities portfolio.

Required:

(i)The optimal cash balance(3 marks)(ii)Assuming 360 days in a year, determine the cash conversion period.(2 marks)(iii)The average cash balance.(1 mark)

- (c)
-) Explain the following types of risks in relation to finance and investments.
 - (i)Political risk.(2 marks)(ii)Technological risk.(2 marks).
- (d) Zenkel Traders borrowed Sh.10,000,000 at an interest rate of 15% per annum from Pesa Bank. The loan is to be repaid in equal annual instalments for the next six years.

Required:

Prepare a loan amortisation schedule.

.....

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(Total: 20 marks)

(6 marks)

(6 marks)

(6 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
										1										0,0100
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
										1	- A	-	1							
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	A 147	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
									~	41										
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		41
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	0.0060	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		•		
							. ()'				-								
							5													

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
-								_									14			
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
	10.057									1										
21	18.85/	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	17.058	15.93/	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	20.450	18.292	10.444	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	10.930	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	19.323	17.413	15.022	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	25 000	33 306	10 600	17 202	45.272	43 765	12.100	44.050	40.074	0.1000	0.0000	D OFFC	7.1057	7.0007				10.000		
30	20.000	24,000	24 407	10.005	15.372	13.765	12.409	11.258	10.2/4	9.4269	8.0938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	3.3321
35	29.409	24.999	21.48/	18.000	10.3/4	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
30	30.108	23.469	21.832	18.908	10.54/	14.021	13.035	11./1/	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	30.106	31 424	25,115	19.793	10.356	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	33,130	31.424	25.150	21.402	10,200	15,762	13,801	12.233	10.902	9,9148	9.041/	8.3045	7.6752	1.132/	6.6605	6.2463	4.9995	4.1666	3,9999	3.3333

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FUNDAMENTALS OF FINANCE

THURSDAY: 16 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) Explain the following forms of dividend:

(i)	Stock dividend.		(2 marks)
(ii)	Scrip dividend.	~	(2 marks)

- (b) Propose three strategies a firm could use in management of Sh in the context of working capital financing policies. (6 marks)
- (c) The forecasted rate of return from investment in securities X and Y over the next 5 years are as follows:

Forecasted returns (%)

Year	Security X	Security Y
2022	10	12
2023	12	8
2024	8	13
2025	15	11
2026	10	6

Required:

(ii)	The standard deviation of returns for security X and security Y.	(4 marks)
(iii)	The coefficient of variation of security X and security Y.	(2 marks)
(iv)	Interpret results in (c) (i) and (c) (ii) above.	(2 marks) (Total: 20 marks)

QUESTION TWO

- (a) Explain four remedial measures to agency conflict between shareholders and debenture holders. (8 marks)
- (b) Peterson Chacha borrowed Sh.5,000,000 from XYZ commercial bank at an interest rate of 14% per annum. The loan is to be repaid in equal annual instalments over a period of 4 years. Interest on the loan is to be paid on a reducing balance basis.

Required:

Prepare a loan amortisation schedule.

(c) Whiteshell Ltd.'s capital structure is provided as follows:

	Sh."000"
Ordinary share capital	60,000
Reserves	20,000
10% debentures	25,000
8% preference share capital	_15,000
	120,000

AD33 Page 1 Out of 3

(4 marks)

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Additional information:

- 1. The firm is expected to generate annual operating profit before interest and tax of Sh.10,000,000 in perpetuity.
- 2. The firm has acceptable investment opportunities worth Sh.2,000,000 to be financed in each year.
- 3. Corporation tax rate is 30%.

Required:

(i)	Total ordinary dividend payable in each year if the firm adopts residual dividend policy.	(6 marks)
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Total ordinary dividend payable in each year if the firm adopts 60% payout ratio policy. (ii) (2 marks) (Total: 20 marks)

OUESTION THREE

- Differentiate between "riba" and "gharar" as used in Islamic finance. (a) (i) (4 marks)
 - (ii) Explain three principles of Islamic finance.

(b) Dynamic PLC intends to invest in project Y which is expected to generate the following cash flows:

Year	Cash flows
	Sh.
0	-100,000
1	20,000
2	30,000
3	40,000
4	50,000

5 30,000

Additional information:

- nya.com The cost of capital is 12% per annum? ŧ.
- 2. The acceptable discounted payback period for Dynamic PLC is 3 years. Ø

Required:

Advise the management of Dynamic PLC on whether to invest in Project Y using the following methods:

(i)	Net present value (NPV).	(4 marks)
(ii)	Profitability index.	(2 marks)
(iii)	Discounted payback period.	(4 marks) (Total: 20 marks)

QUESTION FOUR

- Propose four challenges faced by small and medium sized enterprises (SMEs) in raising capital. (a) (8 marks)
- Fanuel Oketch is considering making equal annual payments into his saving account at the end of each year over a **(b)** period of 5 years. He expects to earn interest on the deposit at the rate of 6% per annum, compounded annually. Oketch is targeting to raise a cumulative sum of Sh.3,000,000 after 5 years to finance an investment project.

The future value of an ordinary annuity in 5 years at the rate of 6% is 5.6371.

Required:

The annual instalment to be deposited into his account each year.

Galaxy Ltd. are considering undertaking an expansion programme which is expected to cost Sh.20 million. The (c) expansion will be a diversification from their mainstream activities into the mining industry.

The firm's capital structure which is considered optional is given as follows:

	Sh."000"
Equity capital	80,000
Long term debt	20,000
	100,000

(2 marks)

(6 marks)

Additional information:

- The firm will finance Sh.6 million of additional funds from internal sources. 1.
- 2. New ordinary shares can be issued at a price of Sh.50 each. A floatation cost of Sh.5 per share will be incurred.
 - The most recent dividend paid by the firm was Sh.2. This is expected to grow at the rate of 5% each year in perpetuity.
- 3. New 8% irredeemable debentures can be issued at a market price of Sh.110 each. The par value of each unit is Sh.100. A floatation cost of 5% of the par value will be incurred.
- 4. Corporation tax rate applicable is 30%.

Required:

	(i)	The cost of retained earnings.	(2 marks)
	(ii)	The after tax cost of 8% debt.	(2 marks)
	(iii)	Cost of ordinary share capital.	(2 marks)
	(iv)	The firm's weighted marginal cost of capital.	(4 marks) (Total: 20 marks)
QUES (a)	TION F Explai	TVE in the following concepts of valuation of a security:	
	(i)	Going concern value.	(2 marks)
	(ii)	Liquidation value.	(2 marks)
	(iii)	Intrinsic value.	(2 marks)
(b)	Summ	arise six factors to consider when making financing decisions.	(6 marks)

(b) Summarise six factors to consider when making financing decisions.

The following information relates to Xylights Ltd. as at 31 December 2019 and 2020: (c)

2019	2020
Sh."000"	Sh."000"
2,000	3,000
3,500	5,500
3,000	6,000
	2019 Sh."000" 2,000 3,500 3,000

Additional information:

- 1. The total sales for the year ended 31 December 2020 were Sh.20 million.
- 2. From past experience 80% of firm's sales are on credit sales. This trend is not expected to change in the foreseeable future.
- 3. The cost of sales of the firm for the year 2020 was Sh.10 million.
- All purchases are usually on credit basis. 4.
- Assume that a year has 52 weeks. 5.

Required:

The working capital cycle (in weeks) for the year ended 31 December 2020.

(8 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%	1%	9%	t0%	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	6.9174	0.9091	0.9099	0.8929	0.8850	0.8772	0.9696	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	0.6573	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	6.8396	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	0.7452	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	6.2072
7	0.9327	0.8706	0.8131	0.7599	8.7107	0.6651	0.6227	0.5835	0.5470	0.5112	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	6.2791	6.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6769	0.6274	0.5820	0.5403	8.5019	0.4665	6.4339	0.4039	0.3762	0.3506	0.3269	6.3650	6.2326	0.1709	0.1678	6.1226
9	0.9143	9.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5062	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	9.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	6.8203	0.7441	0.6756	0.6139	0.5564	0.5083	0.4632	0,4224	0.3855	6.3522	6.3220	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	0.4269	0.3875	9.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.6874	0.7685	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1669	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	0.1621	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	6.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	9.8613	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
																		L		
16	0.8528	0.7284	0.6232	0.5339	0.4581	6.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.6930	0.0541	0.0320	0.0261	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	0.0002	0.0451	0.0258	0.0225	0.0115
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	0.1109	0.0946	0.0908	0.0691	0.0376	G.0208	6.0160	0.0009
19	0.8277	0.6864	0.5703	0.4746	6.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.\$377	0.1161	0.0961	0.0829	0.0703	0.0596	0.0313	0.0168	9.0144	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
								L			\sim									
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	0.0630	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.5468	0.5219	0.4220	0,3418	0.2775	0.2257	0.1039	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0068	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2619	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	0.2476	0.1971	0.1577	0.1204	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	0.0100	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
									L.Y									l	1	
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	9.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	6.0014	<u> </u>	· · ·	•
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0666	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	6.0026	8.0007	•	•	
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0,0379	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%	16%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
t	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	8.9069	0.8929	0.8856	0.8772	0.5696	0.8521	0.6333	0.8065	6.8000	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	\$.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	2.6550	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	3.6887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6,2303	6.6021	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	6.4612	6.2096	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	6.5660	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	6.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6,4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0198	4.8332	4.1925	3.6819	3.5705	3.0915
													L							
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	6.3838	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	\$1.348	10.635	9.9656	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	3.2203
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9619	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	3.0074	3.2632
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	3.1216	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	10.628	10.059	9,3719	8.7556	8.2014	7.7016	7.2497	6.6399	6.4674	6.1200	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9,6036	B.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	9.8161	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
																i				
21	18.857	17.011	15.415	14.029	12.621	11.764	10.836	18.017	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	B.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	14.657	13.489	12.303	11.272	10.371	9.5802	8.6832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	\$8.914	16.936	15.247	13.799	12,550	11.469	10.529	9.7066	8.9847	6.3481	7.7843	7.2629	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	9.6226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
				L					ļ							1				
30	25.809	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	0.8552	B.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1644	3.9984	3.3330
36	30.108	25.489	21.832	10.908	16.547	14.621	13.035	11.717	10.612	9.6765	8,8766	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	13,861	12.233	10.962	9.9144	9.0417	8.3045	7.6752	7,1327	6.6605	6.2463	4.9995	4.1666	3.9999	3,3333



FUNDAMENTALS OF FINANCE

TUESDAY: 31 August 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)	Distinguish between "agency cost" and "agency conflict".	(4 marks)
(b)	Describe four factors that might influence the working capital requirements of a firm.	(8 marks)

(c) Akili Mingi will deposit Sh.500,000 in her savings account at the end of the year 2021. She 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 her account at the end of the year 2025.

(6 marks)

(ii) The rate of return expected to be carned over the projected period. (2 marks) (Total: 20 marks)

QUESTION TWO

(a) Summarise two advantages of lease finance. (4 marks)
(b) Describe three business activities that are prohibited under Islamic finance. (6 marks)
(c) Perks Ltd. is considering acquisition of one of the following two equipment:

- Equipment A: Has a cost of Sh.750,000 and net cash flow of Sh.200,000 per year for six years.
- Equipment B: Has a cost of Sh.500,000 and net cash flow of Sh.140,000 per year for six years.

The required rate of return on both equipment is 10%.

Requir (i)	ed: Net present value (NPV) of each equipment.	(4 marks)
(ii)	The internal rate of return (IRR) of each equipment.	(4 marks)
(iii)	Advise the management of Perks Ltd. on which equipment should be accepted.	(2 marks) (Total: 20 morks)
		(Total: 20 mark

QUESTION THREE

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- (a) Explain three functions of the securities market in your country.
- (b) Melody Ltd. is considering raising an additional Sh.10,000,000 to finance an expansion programme.

The firm's existing capital structure which is considered to be optimal is given as follows:

	Sh."000"
Ordinary share capital	40,000
Reserves	20,000
16% debenture (Sh.100 par)	25,000
14% preference share capital (Sh.20 each)	15,000
	<u>100,000</u>

(6 marks)

Additional information:

- The firm expects to generate Sh.2,000,000 from retained earnings for this expansion programme. 1.
- Additional new ordinary shares will be issued at Sh.45 each subject to a floatation cost of Sh.5 per share. 2. The most recent dividend paid by the company is Sh.2 per share. The firm's dividends are expected to grow at the rate of 5% per annum in perpetuity.
- 3. The company will issue new 16% debentures at a price of Sh.110.
- 4. New 14% preference shares will be issued at par.
- 5. Corporation tax rate applicable is 30%.

Required:

	(i) [–]	The cost of retained earnings.	(2 marks)
	(ii)	The cost of new ordinary share capital.	(2 marks)
	(iii)	The cost of new 16% debentures.	(2 marks)
	(iv)	The cost of new preference shares.	(1 mark)
	(v)	The company's weighted marginal cost of capital (WMCC).	(5 marks)
	(vi)	The number of new ordinary shares to be issued to raise desired external equity.	(2 marks) (Total: 20 marks)
QUES (a)	STION F Explai	OUR in the terms "discounted cash flow".	(2 marks)
(b)	Discu	ss three limitations of debentures as a source of finance.	(6 marks)
(c)	Benard end of annum Regni	d Kiarie undertakes a contractual job for 5 years, in which his annual salary of Sh.1 if f each year. His salary has a provision of an annual increment of 8%. The required r n.	million is payable at the ate of return is 10% per
	The pi	resent value of his salary 0^{1}	(5 marks)
(d)	Star C Retur -20 -10 -5 5 10 18 20 30 Requi	omputer Ltd. has forecasted return on its share with the following probability distribution (%) Probability 0.05 0.05 0.10 0.10 0.15 0.25 0.25 0.25 0.05 red:	on:
	(i)	The expected return.	(3 marks)
	(ii)	The standard deviation of return.	(4 marks)

OUESTION FIVE

- Summarise two disadvantages of the profit maximisation as an objective of a firm. (a) (4 marks)
- Explain three factors that might influence the dividend policy of a firm. (b)
- Bafana Ltd. currently operates with terms of net 72 days. The firm's current average investment in account (c) receivables is Sh.4,800,000. 60% of the firm's sales are always on credit. The current total sales amount to Sh.38,400,000.

Additional information:

- The company is considering introducing terms of 3/15 net 90 days. 1.
- 2. The firm's total turnover is expected to increase by 30% as a result of relaxing the terms of sale.
- All cash customers and 60% of the credit customers will take advantage of the cash discount offer. 3.

AD24 Page 2 Out of 3

(Total: 20 marks)

(6 marks)

- 4. The firm's average collection period will rise from current level 75 days to 80 days.
- 5. Bad debts are expected to remain at 5% of credit sales.
- 6. Inventory levels are estimated to be 5% of the firm's total turnover.
- 7. The gross margin on sales is 40%.
- 8. The cost of capital is 18%.
- 9. Corporation tax rate applicable is 30%.

(Assume that a year has 360 days).

Required:

Advise the management of Bafana Ltd. whether to adopt the new credit policy.

(Total: 20 marks)

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(10 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	0.9258	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8695	0.8621	0.8333	0.8065	0.6000	0.7692
2	0.9603	0,9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.6116	0.7972	0,7831	0.7695	0,7561	0.7432	0.6944	0.6564	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	0.6567	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	8.4096	0.3501
5	Ð.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	0.8689	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	6.5470	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	6.8535	0.7894	0.7.307	0.5768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1769	0.1670	0.1226
9	0.9143	0.8366	0.7664	0.7026	0.6446	0.5919	0.5439	9.5002	0.4604	0.4241	0.3969	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	6.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5003	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	6.1164	0.1074	0.0725
11	0.8963	0.6040	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	9.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8674	0.7885	0.7014	0.6246	0.5568	0.4976	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	6.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0905	0.0610	0.0550	0.0336
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3465	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	6.0779	0.0492	6.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	6.4173	0.3624	0.3152	9.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	6.0352	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	0.0201	0,0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	9.2311	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	6.0691	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	0.0866	0.0728	0.0611	0.0514	0.0261	6.0135	0.0115	0.0053
										-	N [*]									
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	9.0680	0.0560	0.0462	0.0382	0.0181	8800.0	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	0.4264	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	0.1642	0.1460	0,1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.6105	0.0046	0.0038	0.0014
									Y											
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	0.1613	0.1301	0.0937	10,0076	0.0490	0.0356	0.0259	0.0189	0.6139	0.0102	0.0075	0.0055	0.6017	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	6.0339	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%	50%	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	0.6965	0.6000	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	1.6661	1.6467	1.6257	1.6052	1.5278	1.4568	1,4400	1.3609
Э	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	4.1092	3.9927	3.8897	3,7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2,9906	2.7454	2.6693	2.4356
5	5.7955	5.6614	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.6887	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	5.0000	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6946	3.2423	3,1611	2,6021
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	6.7105	6.4177	6.1446	5.6892	5.6502	5.4262	5.2161	5.0198	4.8332	4.1925	3.6819	3.5705	3.0915
																	<u> </u>			
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4907	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	11.34B	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	9.8966	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	6.5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.6514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4,7296	4.0333	3.8874	3.2832
t7	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
19	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7046	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
t9	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	1.9424	3,3105
20	18.046	18,351	14.877	13.590	12.462	11.479	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	10.436	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	B.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
Z3	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	6.8632	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	7.2629	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	9.9226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4,1474	3.9849	3.3266
																	ļ			
30	25.809	22.396	19.600	17.292	15.372	13.765	12,409	11.258	10.274	9.4269	0.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9769	4.1601	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	\$2.948	11.655	10.567	9.6442	B.8552	B.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4,1644	3.9964	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	\$5.046	13.332	11.925	10.757	9.7791	8.9511	6.2438	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	6.3045	7.6752	7.1327	6.6605	6.2463	4.9995	4.1666	3.9999	3.3333



ATD LEVEL 11

FUNDAMENTALS OF FINANCE

TUESDAY: 18 May 2021.

Time Allowed: 3 hours.

(2 marks)

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

QUESTION ONE

Distinguish between the following sets of terms as used in financial markets: (a)

(i)	"Quoted companies" and "unquoted companies".	(2 marks)
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- (ii) "Bonus issue" and "rights issue".
- Summarise two advantages of the internal rate of return (DRR) method used in evaluation of the viability of an (b) investment project. (4 marks)
- (c) Kopex Ltd.'s capital structure is as follows:

rent Ordinary share capital (Sh.20 each) 12% preference share capital (Sh.20 eacle 9% debentures

Additional information:

- The ordinary shares are currently trading on the securities exchange at Sh.75 per share. 1.
- 2. The ordinary dividend for the previous financial year was Sh.10.60 per share. The dividends are expected to grow at an annual growth rate of 8% for the foreseeable future.

Sh."million"

1.920

1,440

960 4,320

- 3. The preference shares have a current market value of Sh.20 per share.
- 4. The debentures are irredeemable and have a current market value of Sh.1,080 per Sh.1,000 nominal value.
- 5. Corporation tax rate is 30%.

Required:

- (i) Kopex Ltd.'s market weighted average cost of capital (MWACC). (8 marks)
- Explain two reasons why Kopex Ltd. could prefer to use market weights instead of book value weights in (ii) the computation of the weighted average cost of capital. (4 marks)

QUESTION TWO

(a) Describe four factors to be taken into account in the design of a firm's credit policy.

(b) The following balances were extracted from the books of Ushauri Ltd. for the year 2020:

	Balances as at	
	Beginning of year Sh."000"	End of year Sh."000"
Finished goods stock	1,000	4,000
Accounts receivable	1,500	4,500
Accounts payable	1,200	2,800

AD24 Page 1 Out of 3

(Total: 20 marks)

(8 marks)

Additional information:

- 1. The firm's sales and cost of sales are Sh.20 million and Sh.15 million respectively. 80% of the firm's sales are credit sales.
- 2. All purchases of stock are on credit basis. (Assume that a year has 360 days).

Required:

The firm's working capital operating cycle for the year 2020.

(c) Kevin Machokah obtained a loan of Sh.1,200,000 from a commercial bank at an interest rate of 12.5% per annum. The loan is to be repaid in equal semi-annual installments over a period of 3 years. The loan interest is to be amortised on a reducing balance basis.

Required:

Loan amortisation schedule for Kevin Machokah.			(6 marks)
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QUESTION THREE

- (a) Explain three areas where the concept of time value of money might be applied. (6 marks)
- (b) Explain three reasons why organisations prefer retained earnings as a source of finance. (6 marks)
- (c) Maize Mills Ltd. expects to generate net income of Sh.10,000,000 in the current financial year.

Additional information:

- 1. The firm's management has established that acceptable investment proposals of Sh.6,000,000 require financing.
- 2. The firm currently adopts a residual dividend policy.
- 3. The number of issued ordinary share(is 10,000,000,

Required:

- (i) The optimal total dividend grable and dividend per share assuming the firm adopts a residual dividend policy. (3 marks)
- (ii) The optimal total dividend payable and dividend per share assuming the firm adopts a 50% payout ratio policy.

(3 marks)

(8 marks)

(6 marks)

(Total: 20 marks)

(iii) Advise the company on the dividend policy to adopt based on your answer in (c) (i) and (c) (ii) above.

(2 marks) (Total: 20 marks)

QUESTION FOUR

(a) Outline four differences between "Islamic banking" and "conventional banking".

(b) Kenvit Ltd. is considering investing in one of the following two projects X and Y, which require an initial cash outlay of Sh.2,200,000 each. Each of the projects has an estimated productive life of five years.

The following information relates to the two projects:

1. The projects will generate the following annual cash inflows:

Year	Project X	Project Y
	Sh.	Sh.
1	200,000	400,000
2	600,000	900,000
3	1,200,000	800,000
4	900,000	700,000
5	500,000	600,000

2. The company's cost of capital is 10% per annum.

AD24 Page 2 Out of 3
Required:

(b)

Advise the management of Kenvit Ltd. on the project to undertake based on the following investment evaluation methods:

	(i)	Net present value (NPV).	(8 marks		
OUEST	(ii)	Profitability index (PI).	(4 marks) (Total: 20 marks)		
 (ii) Profitability index (PI). (4 ma (Total: 20 ma QUESTION FIVE (a) Explain four conflicts that could arise in the course of achieving a firm's objectives. (8 ma (b) Summarise four benefits of regulating financial markets in your country. (4 ma 		(8 marks)			
(b)	Summ	arise four benefits of regulating financial markets in your country.	(4 marks)		

- (¢) Explain the term "unique risk" as used in finance.
- John Kim purchased shares of Barbex Ltd. at the beginning of the year at Sh,125 per share. The forecasted price per (d) share at the end of the year and the probability of its occurrence in different economic conditions are given as follows:

Economic conditions	Probability	Forecasted share price
		Sh.
High growth	0.30	120
Low growth	0.40	130
Stagnation	0.20	140
Recession	0.10	<mark>ر اور اور اور اور اور اور اور اور اور او</mark>
Required:		•
(i) Expected rate of retur	rn of the company's	. (2 marks)
(ii) The standard deviation	on of the return.	(4 marks)
	NO CONTRACTOR	(Total: 20 marks)
	S	

ć

(2 marks)

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

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

r.

Period	44	2%	3**	45	5%	6%	7%	8%	9%	10%	114	12%	13%	14%	15%	16%	20%	24%	254	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	0.6850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7682
2	0.9803	0.9612	0.9426	0.9246	0.9076	0.8900	0.6734	0 8573	0.8417	0.6264	0.0116	0.7972	0./831	0.7695	0 7561	0,7472	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.6990	0.8638	0.8396	0.8163	0.7938	4.7722	0.7513	0.7312	6.7118	0.6931	0.6750	0.6576	0.6467	0.5767	0.5245	3.5120	0.4552
4	0.9610	0.9239	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	0.51%4	0 4972	9.4/61	0.4019	0.3411	0.3277	0.2693
I				-													1			
6	0.9420	0.6830	0.8375	6.7963	0.7462	0.7050	0.6663	6.6302	0.5953	0.5645	0.5346	0.506-6	0.4800	0.4556	2 4323	9.4104	0.3349	0.2751	0.2521	0.20/2
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	0,4(139	0.3762	0 3506	0.3265	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	BCet.0	0.1443	0.1342	9.6943
10	0.9053	0.8203	0.7441	0.6758	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	1.0725
											L	L							l	
11	0.895)	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3595	0.3173	0.2075	0.2607	0.2,66	0.2149	0.1954	U.1.146	0.0938	9,0859	9.0558
12	0 8874	0.7885	0.7014	0.6746	0.5568	0.4970	0 44 40	0.3971	0.3555	0 3186	0.7858	0.2587	0.2307	0.2075	0.1669	0.1585	0.1122	0.0757	0.0687	9.8429
13	0.8767	0.7730	0.6810	0.6006	0.5303	04688	0.4150	0 3577	0.3262	C.2697	0 2575	0 2232	0.2032	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.6139
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0 / 92	0.2633	0.2320	0.2046	0.1497	0 1567	0.1413	0.1252	0.9779	0.0492	0.0449	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	9.4170	0.3624	0.3152	0.2745	0.2394	0.2099	0.1427	0.1599	0,1401	9.1229	0.1079	0.0649	0.0197	0.0352	0.0195
								ļ	İ											
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1683	0.1631	0,1415	0.1229	0 1069	0.0930	0.0541	9.0320	0.0261	0.8156
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	0.8116
18	0.8369	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1168	0.0946	0 0808	0.0691	0.0376	8050.0	0.0180	0.0089
19	0.6277	0.6864	0 5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1345	0.1635	4,1377	0 1161	0.0981	0.6829	0 0703	0.0596	0.031)	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	0.1466	0.1240	0.1007	0.0668	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4358	0.3569	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	9.0926	0 0768	0.0638	0.0531	0.0443	0.0217	0.0105	0.0092	0.0040
8	0.9034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0 1502	0. 1228	0.1097	0.0826	0.0680	0.0560	6.0462	0.4382	0.0161	0.0088	9.6074	0.903+
23	0.7954	0.6342	9.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.(11)	0.0997	0.0738	0.0601	0.9491	0.0402	6.0329	0.0151	0.0071	0.0059	9.0924
24	0.7076	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 (431	9 0 3 4 9	0.0284	d.0126	0.04057	0.6047	0.9018
. 25	0.7798	6.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.5460	0.1160	0.0923	0.0736	0.0568	0.0471	9.0378	0.0064	0.0245	0.0105	0.0046	0.6038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	106/54	0.0573	0.0437	9.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0916	0.0012	
35	0.7059	0.5000	0.3554	0.2534	0.1613	0.1301	6.0937	0.0676	2.0490	0.0356	0.0259	0.0169	0.0139	0.0102	0.0075	0.0055	6.0917	0.0005		
36	0 6989	0.4902	0.3450	0.2437	0.1727	9.1227	0.0875	0.0426	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014			•
46	0.6717	0.4529	0.3066	6.2063	6,1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.6026	0.0007			•
50	0 6080	0.3715	0.2281	0.1497	0.0872	0 0543	0.0338	0.0213	6.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	- '		•	
		_				<u>, </u>	é ^{0°}					_								
		Pres	ent Va	nue in	iterest (rs for /	Annuit	y of 1	Disco	unted	atrP	erceni	for n	Perio	ds:				
		PVIE	Ά	= [1 -	1/ (1+)	n)"]/r														

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

Period	f*6	2%	35	4%	5%4	900	74.	B ^a in	()44	10	51%	12%	13%	145	15%	16%	26%	24%	25%	30%
1	0.9901	0.9864	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	0.6333	0.8065	0.00190	0 7692
2	1.9704	1.9416	1.9135	1,8861	1.6594	1.8334	1.8080	1.7833	1,7591	1.7355	1.7125	1.6901	1.6681	1 6467	1,1257	1.6052	1.5278	1,4568	1.4400	1.3509
	2.9410	2.6839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4019	2 3612	2.3216	2.2832	2,2459	2,1065	1,9813	1.9520	1 8 161
4	3.9020	3.8077	3,7171	3.6299	3.5460	3.4851	3.3872	3.3121	3,2397	3 1699	3.1074	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	4.4516	4.3295	4.2124	4,1002	3.9927	3.6897	3.7906	3.6959	3.6048	3.5172	3.4331	3.3522	3.274)	2.9906	27454	2.6893	2,4356
																				4
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	6.7262	6,4720	6,2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.6684	4.7122	4.5638	4.4226	4.2883	4.1664	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6547	7.3255	7.0197	6.7.327	6.4632	6.2098	5.9713	5,7456	5.5348	5.3349	5.1461	4.9676	4.7968	4.6389	4.4873	4,3436	3.8372	3.4212	3.3289	2.9247
3	8.5650	0.1622	7.7861	7.4353	7.1978	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4 7716	4.6965	4.0310	3.5655	3.4631	3.0190
10	9.4713	6.9826	6.5302	8.1109	7.7217	7.3601	7.0236	6,7101	6.4177	5,1446	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	4.7605	8.3064	7 8869	7.4987	7.1390	6.8052	6,4951	5 2065	5.9377	5.6869	5.4527	5.2337	5 0296	4.3271	3.7757	3.6584	3.1473
12	11,255	10.575	9.9540	9,3851	8.8500	8.3838	7 9427	7.5361	7.1607	6.8137	6 4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4592	3.8514	3,7251	3.1903
13	12.134	11,348	10.635	9.9856	9.3936	B.8527	8.3577	7 9038	7.4969	7.5934	6.7409	6.4235	6.1218	5.8424	5.5831	5.3423	1.5377	3.9124	3.7801	3,2233
14	13.004	12,106	11.296	10.563	9.4986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	ō.3025	6.0921	5.7245	5.49/5	4.6106	3.9616	3.8241	3 2487
15	13.665	12.849	11,938	11,118	10.360	9.7122	9.1079	8.5595	6.0607	7.6061	7,1909	6.6109	6.4524	6.1422	5.8474	5 5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13,578	12.561	11.652	10.938	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6 9740	6.6030	6.2651	5.9542	5.6685	4.7296	4.0333	3.6974	3 2832
- 17	15.562	14,292	13,166	12.166	11.274	10.477	9.7632	9.1216	8.54.36	B.0216	7.5488	7.1195	6.7291	6.3729	6.6472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16,398	14,992	13.754	12.659	11,690	10 628	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	6.5584	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	5.9286	4.8696	4.1103	3.9539	3.3158
21	16.857	17.011	15.415	14,029	12 821	11,764	10.836	10.017	9.2922	8.6487	8 0751	7.5620	7.1015	6.6870	6.3125	5 9731	4.6913	4.1212	3.9631	3.3198
22	19.650	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	5.0113	4,2094	4.1009	3.9705	3.3230
<u>.</u> n	20.456	18.292	16.444	14.857	13.489	12.303	11272	19.371	9.5862	8.8832	8.26n4	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	13.790	12.550	11,469	10.529	9.7065	8.9847	8,3481	7.7843	7.2829	6.8351	5.4338	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	25.609	22.396	19.600	17.292	15.372	13,765	12.409	11.258	10.274	9.4269	9.6936	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1601	3.9950	12221
35	29.409	24.999	21.407	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	36,109	25.489	21.602	19.998	16.547	14.621	13.035	11.717	10.612	9.6765	8.6786	8.1924	7.5979	7.0790	6 6231	6.2201	4.9929	6.1649	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	5 5418	6.2335	4.9966	4.1659	3.9995	3.3332
50	39.196	D1.424	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



ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 24 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.

OUESTION ONE

- Highlight four applications of the cost of capital to a firm. (a)
- Citing three reasons, justify why the accounting profit might not be the best measure of a company's performance. (b) (6 marks)
- Riziki Ltd. borrowed Sh.15,000,000 from Zaidi Bank at an annual compound interest rate of 18% on the reducing (c) balance. The loan was repayable in annual installments over a period of six years. The installments were payable at the end of each year.

Required:

A loan amortisation schedule for Riziki Ltd.

172 At the beginning of year 2015, Chiaro Know deposited Sh.1,000,000 in an investment account which earned (d) compound interest at the rate of 15% per annum. At the beginning of each subsequent year, Chiaro Kwekwe deposited a further Sh.500,000 in the same account

Required:

The amount of money in the investment account by the end of the year 2019.

OUESTION TWO

(a)	Outline	two advantages of bonus issue of shares from the viewpoint of the company.	(2 marks)
(b)	Discuss	four dividend pay-out policies that could be adopted by different companies in your country.	(8 marks)
(c)	Explain	the following types of risks:	
	(i)	Market risk.	(1 mark)
	(ii)	Interest rate risk.	(1 mark)

- (1 mark) Default risk. (iiii)
- Barry Otipha plans to buy shares of Lightway Ltd. that are currently selling at Sh.20 each at the Securities Exchange. (d) The forecasted price per share and probability of their occurrence in 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	18

Required:

Expected rate of return of the company's share. (i)

The standard deviation of return. (ii)

(3 marks)

(4 marks) (Total: 20 marks)

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(6 marks)

(4 marks)

(Total: 20 marks)

(4 marks)

OUESTION THREE

Explain four features of ordinary shares. (a)

(b) Orbitech Ltd's capital structure which is considered to be optimal is given as follows:

	%
Equity	60 %
Debt	40%
	100

The firm is planning to raise an additional Sh.5,000,000 to finance an expansion programme. This project is expected to generate additional net operating cash inflows of Sh.700,000 in each year in perpetuity.

Additional information:

- 1. New ordinary shares could be issued at Sh.40 each and incur a floatation cost of Sh.2 per share issued.
- 2. The firm's current earnings per share is Sh.5 and adopts a 50% payout ratio as its dividend policy. The firm's future dividend is expected to grow at a constant rate of 4% each year indefinitely.
- 3. New irredeemable 10% debentures can be issued at par at Sh.100 each. Floatation cost of Sh.3 per debenture issued will be incurred.
- 4. Corporation tax rate is 30%.
- 5. Retained earnings available to finance this activity are estimated at Sh.1,000,000.

Required:

(i)	Cost of retained earnings.	(2 marks)
(ii)	Cost of ordinary share capital.	(2 marks)
(iii)	Effective cost of 10% debenture apital.	(2 marks)
(iv)	Weighted marginal cost of capital (WMCC) of a firm.	(4 marks)
(v)	The number of ordinary shares to be issued to raise external equity.	(2 marks) (Total: 20 marks)
QUESTION FOUR (a) Explain three a	pproaches to financing working capital that could be adopted by different firms.	(6 marks)

- (b) Outline four features of a sound investment appraisal technique.
- (c) Banita Ltd. is considering the selection of a project from two mutually exclusive projects with an estimated productive life of five years.

The following information relates to the two projects:

Project A: The project costs Sh.9,920,000 and is expected to generate annual cash flows of Sh.2,400,000 with an estimated residual value of Sh.1,180,000.

Project B: The project costs Sh.4,800,000 and is expected to generate annual cash flows of Sh.1,200,000 with an estimated residual value of Sh.405,000.

The company's cost of capital is 14% per annum.

Required:

(i)	Payback period for each project.	(4 marks)
(ii)	Net present value (NPV) of each project.	(4 marks)

(iii) Advise the management of Banita Limited on the project to undertake under each of the investment valuation methods in (c) (i) and (c) (ii) above. (2 marks)

(Total: 20 marks)

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(4 marks)

(8 marks)

QUESTION FIVE

(b)

(a) In relation to Islamic Finance, distinguish between the following terminologies:

(i)	Istna and salam.	(2 marks)
(ii)	Ijara and sukuk.	(2 marks)
(iii)	Mudhaaraba and mushaaraka.	(2 marks)
Explain	three methods of listing a company at the Securities Exchange	(6 marks)

(c) Blaze Ltd. requires 20,000 units of a component "Y" in its manufacturing process in the coming year which costs Sh.50 each. The items are available locally and hence the lead time is one week. Each order costs Sh.20 to prepare and process while the holding cost is Sh.15 per unit per year for storage plus 10% of the purchase price as opportunity cost.

Required:

(i)	Optimal quantity of the component "Y" to be ordered in each order.	(4 marks)
(ii)	The re-order level. (Assume 50 weeks in a year).	(3 marks)

(iii) The number of orders to be placed per year.

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(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	0.87721	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
				311	12200					120	1	1200	10000	100					1.52	1220
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
				1000		14.5			100000		120014	-						131253	11.	
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	0.2045	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
143	52	14.5.5	100.00		12.17		1	HIS N			42.5	1.85			21	1.8.9	1 to the	12-35	121252	1
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	8080.0	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	6.2317	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
	Red and	1225	1.2/15	1287	Calc. 4	100 200 M	2.22		1.11	5	~	11. C		-			1.345			
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.135	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0640
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
and the state	-	100	1000	3			1.1.1	-	7	1		1	1	1992	1.2.2.3	122	12042	1		
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	49994	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	0.9676	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	0.0669	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	0.0839	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:

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

Doriod	484	204	- 284	14	534	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1 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	37171	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
	1000		1			1000			2019	2200				1. C. S.	1					
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
1.1	1.194			Contraction of the		1.1.1.1	-BIFS	1					1000			1221		S.S.L	-	2
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	8.9607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682
	Part and	1-1-1-X	Con Ki	R		See.	1	121			140	- 32-1-1		and a	1.20	11000	1	1		1. Carrie
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
The second s		1			1	n	1	1	1.1.1.		10-24-201						1			
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	4.9474	3.9849	3.3286
	Carlor State		1222	1999		10-512-5	1000	218			1.222.5	196	1000	1.10		CHUEL I	123		1 34	1
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



ATD LEVEL II

FUNDAMENTALS OF FINANCE

WEDNESDAY: 27 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

Describe the functions of the following financial market participants: (a)

- (2 marks) (i) Brokers. (2 marks) Investment banks. (ii) (2 marks) (iii) Securitisers.
- Discuss four ways in which the potential agency problems between shareholders and the management could be (b) (8 marks) resolved.
- Christopher Omondo borrowed Sh.2,500,000 from Betacom Bank Ltd. at an interest rate of 15% per annum. The loan (c) is to be repaid semi-annually over a period of 3 years. The interest on the loan is to be paid on a reducing balance basis.

Required:

- The amount of each semi-annual instalment payable for the loan. (i)
- (4 marks) A loan amortisation schedule. (ii) (Total: 20 marks)

QUESTION TWO

- In relation to time value of money, describe three interpretations of interest rates. (3 marks) (a) (i)
 - In 1988, the average cost of an asset was Sh.1,800. Thirty years later, in 2018, the average cost of the same (ii) asset was Sh.13,700.

Required:

(2 marks) The growth rate in the asset value over the 30 year period. (8 marks)

- Propose four factors that could influence a firm's cost of capital. (b) ·
- Juhudi Ltd. is considering investing in a new machine that will cost Sh. 1,000,000 at time 0. The machine can be sold (¢) after three years for Sh.100,000. To operate the machine, Sh.200,000 must be invested at time 0 in inventories. These funds will be recovered when the machine is retired at the end of year 3. The machine will produce sales revenue of Sh.900,000 per year for 3 years. Variable operating costs excluding depreciation will be 50% of sales. Operating cash inflows will begin in year 1 from today (at time 1). The machine will have depreciation expenses of Sh.500,000, Sh.300,000 and Sh.200,000 in years 1, 2 and 3 respectively. The company has a 30% tax rate and a 10% cost of capital. Assume inflation is zero.

Required:

The projects net present value (NPV). (i)

(6 marks)

(2 marks)

Advise the management of Juhudi Ltd. Sn whether to undertake the project based on your result in (c) (i) (ii) (1 mark) above.

(Total: 20 marks)

OUESTION THREE

Summarise five rights of equity shareholders of a company. (a)

- (b) Highlight four disadvantages of Islamic finance.
- Oak Ltd. is considering undertaking a project that has an upfront cost and a series of positive cash flows. The (c) project's estimated cash flows are summarised below:

Year	Project cash flow			
	Sh."000"			
0	?			
1	500			
2	300			
3	400			
4	600			

The project has a regular payback period of 2.25 years.

Required:

The project's internal rate of return (IRR).

Explain three reasons why a company might prefer to issue bonus shares instead of paying cash dividend. (d) (6 marks) (Total: 20 marks)

OUESTION FOUR

- Suggest five reasons for prolonged working capital operating cycle. (a)
- Lakers Ltd. has annual sales of Sh.50,735,000 and maintains an average inventory level of Sh.15,012,000. The (b) average accounts receivable balance outstanding is Sh.10,008,000. The company makes all purchases on credit and has always paid on the 30th day. The correspondence is now going to take full advantage of trade credit and pay its suppliers on the 40th day. Its sales can be maintained at existing levels but inventory can be reduced by Sh.1,946,000 and accounts receivable reduced by Sh. 9946,000. There are 365 days in a year.

Required:

Determine the net change in the cash conversion cycle.

A prospective investor bought shares of Kenland Paints Ltd. at the start of the year for Sh.25 each. The forecasted (c) price of each share at the end of the year and probability of their occurrence in different states of nature are given as follows:

	State	of nature	Probability	Forecasted share price	•
			-	Sh.	
	Good		0.20	30	
	Fair		0.40	27	
	Poor		0.40	24	
	Requi	red:			
	(Ĩ)	Expected rat	te of return.		(3 marks)
	(ii)	The standard	d deviation of return.		(4 marks)
	(iii)	The relative	risk.		(2 marks)
					(Total: 20 marks)
QUE	STION F	IVE			
(a)	Distingu	iish between "s	ystematic risk" and "uns	ystematic risk".	(4 marks)

Omena Ltd's capital structure which is considered to be optimal is given as follows: (b)

	— Sh. "00
Ordinary share capital (Sh.10 each)	5,00
Reserves	1,00
14% Debenture (Sh.100 each)	3,00
12% Preference share capital (Sh.20 each)	<u>1,00</u>
• • •	10.00

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AD24 Page 2 Out of 3

(5 marks)

(4 marks)

(6 marks)

(5 marks)

(5 marks)

The firm is contemplating raising an additional Sh.5,000,000 to finance a capital investment which is expected to generate annual net cash flows of Sh.1,600,000 over its 5 years useful life. No resale value is expected at the end of its useful life.

The firm expects to generate Sh. 1,000,000 from internal sources to finance the investment activity.

Additional information:

- 1. New ordinary shares can be issued at Sh.50 each. A floatation cost of Sh.5 per share will be incurred. The most recent dividend paid was Sh.2 per share.
- 2. The firm's future dividends are expected to grow at a constant rate of 5% each year in perpetuity.
- 3. New 10%, redeemable debentures will be issued at Sh.105 per unit. The par value for each unit is Sh.100 and a floatation cost of 10% of par value will be incurred. The debenture will mature after 10 years.
- 4. New 12% irredeemable preference shares will be issued at Sh.28 each subject to a floatation cost of Sh.3 per share issued. The par value is Sh.20 per share.
- 5. Corporation tax rate is 30%.

Required:

(i)	The cost of retained profit.	(2 marks)
(ii)	The cost of ordinary share capital.	(2 marks)
(iii)	The after tax cost of new 10% redeemable debentures.	(3 marks)
(iv)	The cost of new 12% irredeemable preference share capital.	(2 marks)
(v)	The firm's weighted marginal cost of capital (WMCC).	(4 marks)
(vi)	Using the Net Present Value (NPV) technique, advise on the suitability or otherwis	e of the proposed project
	T.e.a	(3 marks) (Total: 20 marks)

Present	Value of 1 Received at the End of n Periods:
PVIF	$= 1/(1+r)^n = (1+r)^{-n}$

17	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	15%	16%	20%	24%	20%	32%	36%
.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.2353
9803	.9612	,9426	9246	.9070	.8900	.8734	.8573	.8417	.8264	7972	7695	.7561	7432	7182	,6944	.6504	6104	5739	.5407
.9706	.9423	.9151	.6890	.8638	.8396	.8163	.7938	7722	,7513	.7118	6750	.6575	.6407	.6086	.5787	.5245	4768	4348	.3975
.9610	,9238	.8885	.8546	.8227	.7921	,7629	.7350	7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	,4230	.3725	.3294	.2923
.9515	.9057	.9626	.8219	.7835	.7473	.7130	.6806	,6499	,6209	,5674	5194	.4972	.4761	.4371	.4019	.3411	2910	.2495	.2149
.9420	.8880	,8375	.7903	.7462	.7050	.6663	.6302	,5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
.9327	.8706	.8131	.7599	,7107	.6651	.6227	.5835	.5470	.5132	4523	.3996	.3759	.3538	.3139	,2791	.2218	:1776	.1432	.1162
.9235	.8535	.7894	.7307	.6768	.6274	.5820	,\$403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	2326	.1789	.1386	.1085	.0854
.9143	.8360	.7664	.7026	,6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
,9053	.8203	.7441	.6756	.6139	.5584	,5083	.4532	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	,0847	.0623	.0462
8963	.8043	7224	.6496	.5847	,5268	,4751	.4289	.3875	.3505	2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
.8074	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
.8787	.7730	.6010	.6006	.5303	.4688	.4150	.3677	.3262	.2697	.2292	1821	.162\$.1452	.1163	.0935	.0610	.0404	.0271	.0184
.8700	.7579	.6611	.5775	.5051	.4423	.3070	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0965	.0779	.0492	.0316	.0205	.0135
.8613	.7430	.6419	.5553	.4010	.4173	.3624	.3152	.2745	.2394	,1827	.1401	.1229	.1079	.0635	.0649	.0397	.0247	.0155	0099
.8528	.7284	.5232	.5339	.4581	.3936	.3307	.2919	.2519	.2176	.1631	.1229	.1069	.0930	0708	.0541	.0320	.0193	.0118	.0073
8444	7142	.6050	.5134	.4363	.3714	.3166	2703	.2311	.1978	,1456	1078	.0929	.0902	0000	.0451	.0258	.0150	0089	.0054
.0360	,7002	.5674	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0608	.0691	.0508	.0376	.0208	.0118	.0068	0039
.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
.7798	.6095	4776	.3751	.2953	.2330	.1642	.1460	.1160	,0923	0580	.0378	.0304	.0245	0160	.0105	.0046	.0021	.0010	0005
7419	.5521	.4120	.3083	.2314	.1741	.1314	0994	.0754	.0573	334	0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
,6717	,4529	.3066	.2063	.1420	.0972	.0668	0460	.0318	.0221	.0107	.0053	0037	.0026	.0013	.0007	.0002	.0001		
.6080	.3715	.2261	.1407	.0872	.0543	.0339	.0213	.0134	.0095	,0035	.0014	.0009	.0005	.0003	.0001				
.5504	.3040	.1697	.0951	.0535	.0303	.0173	.0099	.0057	0033	.0011	.0004	.0002	.0001			- 1			
	1% 9901 9706 9706 9715 9420 9327 9235 9143 9053 8963 8074 8767 8700 8613 8520 8444 8360 8277 8195 7798 7419 6717 6080 5504	1% 2% .9901 .9803 .9803 .9612 .9766 .9423 .9515 .9057 .9420 .8860 .9327 .8706 .9235 .8535 .9143 .8366 .9053 .8203 .9613 .8043 .8074 .7885 .8767 .7730 .8700 .7579 .8613 .7430 .8526 .7284 .8444 .7142 .9360 .7002 .9277 .6064 .9195 .6730 .7798 .6095 .7419 .5521 .6717 .4529 .6080 .3715 .5504 .3048	1% 2% 3% .9901 .9804 .9709 .9803 .9612 .9426 .9706 .9423 .9151 .9610 .9238 .8885 .9515 .9057 .8626 .9420 .8800 .8375 .9515 .9057 .8626 .9420 .8800 .8375 .9327 .8706 .8131 .9235 .8535 .7694 .9143 .8359 .7644 .9053 .80203 .7441 .8963 .8043 .7224 .8870 .7579 .6611 .8700 .7579 .6611 .8700 .7579 .6614 .8520 .7284 .5232 .8444 .7142 .6050 .8520 .7002 .5673 .8520 .7030 .5537 .7798 .6095 .4776 .8195 .6730 .5537 .7798 </td <td>1% 2% 3% 4% .9901 .9804 .9709 .9615 .9803 .9612 .9426 .9246 .9706 .9423 .9151 .8690 .9610 .9238 .8865 .8546 .9515 .9057 .8626 .8213 .9420 .8860 .8375 .7903 .9327 .8706 .8131 .7539 .9235 .8535 .7654 .7307 .9143 .8369 .7644 .7026 .9053 .8203 .7441 .6756 .8963 .8043 .7224 .6496 .8074 .7885 .7014 .6246 .8700 .7579 .6611 .5753 .8520 .7284 .6232 .5339 .8444 .7142 .6050 .5134 .8360 .7002 .5574 .4936 .8277 .6864 .5703 .4764 .8195 .6730 .553</td> <td>1% 2% 3% 4% 5% .9901 .9004 .9709 .9615 .9524 .9803 .9612 .9426 .9266 .9070 .9706 .9423 .9151 .8690 .8638 .9610 .9238 .8885 .8548 .8227 .9515 .9057 .8626 .8219 .7635 .9420 .8860 .8375 .7903 .7462 .9327 .8706 .8131 .7599 .7107 .9235 .8535 .7694 .7307 .6768 .9143 .8369 .7644 .7026 .6446 .9053 .8203 .7441 .6756 .6139 .8963 .8043 .7224 .6496 .5847 .8074 .7885 .7014 .6246 .5563 .8700 .7579 .6611 .5775 .6051 .4363 .8444 .7142 .6050 .5134 .4363 .8260</td> <td>1% 2% 3% 4% 5% 6% .9901 .9604 .9709 .9615 .9524 .9434 .9803 .9612 .9426 .9070 .8900 .9706 .9423 .9151 .8690 .6338 .8396 .9610 .9238 .8865 .8546 .8227 .7921 .9515 .9057 .8626 .8219 .7635 .7473 .9420 .8860 .8375 .7903 .7462 .7050 .9327 .8706 .8131 .7599 .7107 .6651 .9235 .8535 .7694 .7307 .6768 .6274 .9433 .8043 .7224 .6496 .5847 .5268 .8074 .7885 .7014 .6246 .5564 .970 .8700 .7579 .6611 .5753 .4810 .4173 .8524 .7284 .5232 .5339 .4581 .3936 .8444 .</td> <td>1%$2%$$3%$$4%$$5%$$6%$$7%$$9901$$9804$$9709$$9615$$9524$$9434$$9346$$9803$$9612$$9426$$9970$$8900$$8734$$9706$$9423$$9151$$8690$$8638$$8396$$8163$$9610$$9238$$8865$$8546$$8227$$7921$$7629$$9515$$9057$$8626$$8219$$7835$$7473$$7130$$9420$$8890$$8375$$7903$$7462$$7050$$6663$$9327$$8706$$8131$$7599$$7107$$6651$$6227$$9235$$8535$$7894$$7307$$6768$$6274$$5820$$9143$$8369$$7664$$7026$$6446$$5919$$5439$$9053$$8203$$7441$$6576$$6139$$5594$$5083$$8963$$8043$$7224$$6496$$5847$$5268$$4751$$8700$$7579$$6611$$5755$$5051$$4423$$3976$$8700$$7579$$6611$$5755$$5051$$4423$$3978$$8444$$7142$$6050$$5134$$4363$$3714$$3166$$8360$$7002$$5574$$4564$$3769$$3118$$2584$$8700$$7579$$6733$$4746$$3957$$3305$$2765$$8952$$7284$$6232$$5339$$4581$$3936$$3397$$8444$</td> <td>1% 2% 3% 4% 5% 6% 7% 8% .9901 .9604 .9709 .9615 .9524 .9434 .9346 .9259 .9803 .9612 .9426 .9070 .8900 .8734 .8573 .9706 .9423 .9151 .8890 .8396 .8163 .7939 .9610 .9238 .8885 .8546 .8227 .7921 .7629 .7350 .9515 .9057 .8626 .8219 .7835 .7473 .7130 .6806 .9420 .8880 .8311 .7599 .7107 .6651 .6227 .5835 .9235 .8535 .7694 .7307 .6768 .6274 .5820 .5403 .9420 .8880 .844 .7026 .6446 .5919 .5439 .5002 .9323 .8535 .7694 .7036 .6133 .5584 .5083 .4532 .9053 .8203 .7441</td> <td>1%$2%$$3%$$4%$$5%$$6%$$7%$$8%$$9%$$9901$$9904$$9709$$9615$$9524$$9434$$9346$$9259$$9174$$9803$$9612$$9426$$9070$$8900$$8734$$8573$$B417$$9706$$9423$$9151$$8896$$8636$$8163$$7938$$7722$$9610$$9238$$8865$$8546$$8227$$7921$$7629$$7350$$7084$$9515$$9057$$8626$$8219$$7035$$7473$$7130$$6806$$6499$$9420$$8860$$8375$$7903$$7462$$7050$$6663$$6302$$5963$$9327$$8706$$8131$$7599$$7107$$66651$$6227$$5835$$5470$$9235$$8535$$7694$$7026$$64446$$5919$$5439$$5002$$4604$$9053$$8203$$7441$$6756$$6139$$5584$$5083$$4632$$4224$$8963$$8043$$7224$$6496$$5807$$5268$$4751$$4269$$3875$$8074$$7885$$7014$$6246$$5563$$4970$$4440$$3971$$3355$$8074$$7826$$5134$$4363$$3714$$3165$$2992$$8070$$7579$$6611$$5775$$5051$$4423$$3876$$3467$$2922$$8700$$7579$$6611$$5775$$5051$$4423$<td< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 18% 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 8929 6772 8696 6621 8475 9706 9423 9151 6690 6638 8396 8163 7938 7722 7513 7119 6750 6575 6407 6096 9515 9057 8626 6219 7635 7473 7130 6806 6499 6209 5674 5194 4972 4761 4371 9420 8800 8375 7903 7462 7050 6663 6302 5963 5645 5064 4523 3966 3566 3269 3506 3269 3566 3259 3560 3269 3565 3620 5439 3506 3269 3260 3256 3263 3258</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 204 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 9929 9772 9656 .8621 .8475 .8333 9901 9232 9151 .8690 .6638 .8396 .613 .7388 .7722 .7513 .7110 .6575 .6407 .6066 .7877 .9610 .9238 .8965 .6521 .7783 .7130 .6606 .6439 .6535 .5921 .5718 .5523 .5159 .4872 .4761 .4371 .4019 .9420 .8860 .8375 .7903 .7462 .7050 .6663 .6302 .5963 .5645 .5066 .4323 .4104 .3704 .3149 .9327 .8706 .8131 .7597 .7107 .6644 .5274 .5132 .452</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 15% 16% 20% 24% 9901 9604 9709 9615 9524 9444 9346 9259 9174 3091 8623 6772 3636 6621 8475 8333 8065 9803 9612 9426 9070 6900 6734 8573 8417 3021 7695 7561 7432 7182 6944 6504 9710 9533 3865 8646 8227 7921 7763 7106 6530 6335 5521 5154 423 4407 4371 4019 3411 9515 9057 8626 8219 703 7462 7050 6663 6302 5963 5645 5066 4556 4323 4104 3704 3349 2711 2216 9235 8535 7694 7307 <t< td=""><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 20% 24% 26% 9901 9604 9709 9615 9524 9434 9346 9259 9174 9001 8929 6772 8936 6621 .8475 .8333 8065 .7613 9803 9612 .9426 9246 9070 .6930 .8734 .8373 .8117 .8264 .7927 .7635 .7613 .7142 .7162 .6407 .6006 .5737 .5245 .4768 9510 .9238 .8865 .6544 .6227 .7064 .6300 .6355 .5914 .4371 .4019 .4411 .2714 .2714 .2714 .2714 .2744 .4761 .4371 .4019 .411 .2719 .2214 .4503 .5002 .5643 .5026 .3556 .3258 .3139 .2751 .2274 .3223 .3404<</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 20% 24% 28% 32% 9901 9904 9709 9615 9524 5444 9346 3259 9174 9625 6772 7655 7561 7432 7182 6844 6504 6104 5739 9706 5423 9151 6890 8638 8396 8163 7939 7722 7513 7116 6570 6575 5164 7322 7223 721 7577 7377 7322 7313 7116 6520 5164 4323 4104 3704 3349 2751 2217 2324 9515 9057 7903 7462 7050 6663 6320 5645 5066 4556 4323 4104 3704 3349 2751 2214 1432 9325 8535 7793 7107</td></t<></td></td<></td>	1% 2% 3% 4% .9901 .9804 .9709 .9615 .9803 .9612 .9426 .9246 .9706 .9423 .9151 .8690 .9610 .9238 .8865 .8546 .9515 .9057 .8626 .8213 .9420 .8860 .8375 .7903 .9327 .8706 .8131 .7539 .9235 .8535 .7654 .7307 .9143 .8369 .7644 .7026 .9053 .8203 .7441 .6756 .8963 .8043 .7224 .6496 .8074 .7885 .7014 .6246 .8700 .7579 .6611 .5753 .8520 .7284 .6232 .5339 .8444 .7142 .6050 .5134 .8360 .7002 .5574 .4936 .8277 .6864 .5703 .4764 .8195 .6730 .553	1% 2% 3% 4% 5% .9901 .9004 .9709 .9615 .9524 .9803 .9612 .9426 .9266 .9070 .9706 .9423 .9151 .8690 .8638 .9610 .9238 .8885 .8548 .8227 .9515 .9057 .8626 .8219 .7635 .9420 .8860 .8375 .7903 .7462 .9327 .8706 .8131 .7599 .7107 .9235 .8535 .7694 .7307 .6768 .9143 .8369 .7644 .7026 .6446 .9053 .8203 .7441 .6756 .6139 .8963 .8043 .7224 .6496 .5847 .8074 .7885 .7014 .6246 .5563 .8700 .7579 .6611 .5775 .6051 .4363 .8444 .7142 .6050 .5134 .4363 .8260	1% 2% 3% 4% 5% 6% .9901 .9604 .9709 .9615 .9524 .9434 .9803 .9612 .9426 .9070 .8900 .9706 .9423 .9151 .8690 .6338 .8396 .9610 .9238 .8865 .8546 .8227 .7921 .9515 .9057 .8626 .8219 .7635 .7473 .9420 .8860 .8375 .7903 .7462 .7050 .9327 .8706 .8131 .7599 .7107 .6651 .9235 .8535 .7694 .7307 .6768 .6274 .9433 .8043 .7224 .6496 .5847 .5268 .8074 .7885 .7014 .6246 .5564 .970 .8700 .7579 .6611 .5753 .4810 .4173 .8524 .7284 .5232 .5339 .4581 .3936 .8444 .	1% $2%$ $3%$ $4%$ $5%$ $6%$ $7%$ 9901 9804 9709 9615 9524 9434 9346 9803 9612 9426 9970 8900 8734 9706 9423 9151 8690 8638 8396 8163 9610 9238 8865 8546 8227 7921 7629 9515 9057 8626 8219 7835 7473 7130 9420 8890 8375 7903 7462 7050 6663 9327 8706 8131 7599 7107 6651 6227 9235 8535 7894 7307 6768 6274 5820 9143 8369 7664 7026 6446 5919 5439 9053 8203 7441 6576 6139 5594 5083 8963 8043 7224 6496 5847 5268 4751 8700 7579 6611 5755 5051 4423 3976 8700 7579 6611 5755 5051 4423 3978 8444 7142 6050 5134 4363 3714 3166 8360 7002 5574 4564 3769 3118 2584 8700 7579 6733 4746 3957 3305 2765 8952 7284 6232 5339 4581 3936 3397 8444	1% 2% 3% 4% 5% 6% 7% 8% .9901 .9604 .9709 .9615 .9524 .9434 .9346 .9259 .9803 .9612 .9426 .9070 .8900 .8734 .8573 .9706 .9423 .9151 .8890 .8396 .8163 .7939 .9610 .9238 .8885 .8546 .8227 .7921 .7629 .7350 .9515 .9057 .8626 .8219 .7835 .7473 .7130 .6806 .9420 .8880 .8311 .7599 .7107 .6651 .6227 .5835 .9235 .8535 .7694 .7307 .6768 .6274 .5820 .5403 .9420 .8880 .844 .7026 .6446 .5919 .5439 .5002 .9323 .8535 .7694 .7036 .6133 .5584 .5083 .4532 .9053 .8203 .7441	1% $2%$ $3%$ $4%$ $5%$ $6%$ $7%$ $8%$ $9%$ 9901 9904 9709 9615 9524 9434 9346 9259 9174 9803 9612 9426 9070 8900 8734 8573 $B417$ 9706 9423 9151 8896 8636 8163 7938 7722 9610 9238 8865 8546 8227 7921 7629 7350 7084 9515 9057 8626 8219 7035 7473 7130 6806 6499 9420 8860 8375 7903 7462 7050 6663 6302 5963 9327 8706 8131 7599 7107 66651 6227 5835 5470 9235 8535 7694 7026 64446 5919 5439 5002 4604 9053 8203 7441 6756 6139 5584 5083 4632 4224 8963 8043 7224 6496 5807 5268 4751 4269 3875 8074 7885 7014 6246 5563 4970 4440 3971 3355 8074 7826 5134 4363 3714 3165 2992 8070 7579 6611 5775 5051 4423 3876 3467 2922 8700 7579 6611 5775 5051 4423 <td< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 18% 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 8929 6772 8696 6621 8475 9706 9423 9151 6690 6638 8396 8163 7938 7722 7513 7119 6750 6575 6407 6096 9515 9057 8626 6219 7635 7473 7130 6806 6499 6209 5674 5194 4972 4761 4371 9420 8800 8375 7903 7462 7050 6663 6302 5963 5645 5064 4523 3966 3566 3269 3506 3269 3566 3259 3560 3269 3565 3620 5439 3506 3269 3260 3256 3263 3258</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 204 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 9929 9772 9656 .8621 .8475 .8333 9901 9232 9151 .8690 .6638 .8396 .613 .7388 .7722 .7513 .7110 .6575 .6407 .6066 .7877 .9610 .9238 .8965 .6521 .7783 .7130 .6606 .6439 .6535 .5921 .5718 .5523 .5159 .4872 .4761 .4371 .4019 .9420 .8860 .8375 .7903 .7462 .7050 .6663 .6302 .5963 .5645 .5066 .4323 .4104 .3704 .3149 .9327 .8706 .8131 .7597 .7107 .6644 .5274 .5132 .452</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 15% 16% 20% 24% 9901 9604 9709 9615 9524 9444 9346 9259 9174 3091 8623 6772 3636 6621 8475 8333 8065 9803 9612 9426 9070 6900 6734 8573 8417 3021 7695 7561 7432 7182 6944 6504 9710 9533 3865 8646 8227 7921 7763 7106 6530 6335 5521 5154 423 4407 4371 4019 3411 9515 9057 8626 8219 703 7462 7050 6663 6302 5963 5645 5066 4556 4323 4104 3704 3349 2711 2216 9235 8535 7694 7307 <t< td=""><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 20% 24% 26% 9901 9604 9709 9615 9524 9434 9346 9259 9174 9001 8929 6772 8936 6621 .8475 .8333 8065 .7613 9803 9612 .9426 9246 9070 .6930 .8734 .8373 .8117 .8264 .7927 .7635 .7613 .7142 .7162 .6407 .6006 .5737 .5245 .4768 9510 .9238 .8865 .6544 .6227 .7064 .6300 .6355 .5914 .4371 .4019 .4411 .2714 .2714 .2714 .2714 .2744 .4761 .4371 .4019 .411 .2719 .2214 .4503 .5002 .5643 .5026 .3556 .3258 .3139 .2751 .2274 .3223 .3404<</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 20% 24% 28% 32% 9901 9904 9709 9615 9524 5444 9346 3259 9174 9625 6772 7655 7561 7432 7182 6844 6504 6104 5739 9706 5423 9151 6890 8638 8396 8163 7939 7722 7513 7116 6570 6575 5164 7322 7223 721 7577 7377 7322 7313 7116 6520 5164 4323 4104 3704 3349 2751 2217 2324 9515 9057 7903 7462 7050 6663 6320 5645 5066 4556 4323 4104 3704 3349 2751 2214 1432 9325 8535 7793 7107</td></t<></td></td<>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 18% 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 8929 6772 8696 6621 8475 9706 9423 9151 6690 6638 8396 8163 7938 7722 7513 7119 6750 6575 6407 6096 9515 9057 8626 6219 7635 7473 7130 6806 6499 6209 5674 5194 4972 4761 4371 9420 8800 8375 7903 7462 7050 6663 6302 5963 5645 5064 4523 3966 3566 3269 3506 3269 3566 3259 3560 3269 3565 3620 5439 3506 3269 3260 3256 3263 3258	1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 204 9901 9804 9709 9615 9524 9434 9346 9259 9174 9091 9929 9772 9656 .8621 .8475 .8333 9901 9232 9151 .8690 .6638 .8396 .613 .7388 .7722 .7513 .7110 .6575 .6407 .6066 .7877 .9610 .9238 .8965 .6521 .7783 .7130 .6606 .6439 .6535 .5921 .5718 .5523 .5159 .4872 .4761 .4371 .4019 .9420 .8860 .8375 .7903 .7462 .7050 .6663 .6302 .5963 .5645 .5066 .4323 .4104 .3704 .3149 .9327 .8706 .8131 .7597 .7107 .6644 .5274 .5132 .452	1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 15% 16% 20% 24% 9901 9604 9709 9615 9524 9444 9346 9259 9174 3091 8623 6772 3636 6621 8475 8333 8065 9803 9612 9426 9070 6900 6734 8573 8417 3021 7695 7561 7432 7182 6944 6504 9710 9533 3865 8646 8227 7921 7763 7106 6530 6335 5521 5154 423 4407 4371 4019 3411 9515 9057 8626 8219 703 7462 7050 6663 6302 5963 5645 5066 4556 4323 4104 3704 3349 2711 2216 9235 8535 7694 7307 <t< td=""><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 20% 24% 26% 9901 9604 9709 9615 9524 9434 9346 9259 9174 9001 8929 6772 8936 6621 .8475 .8333 8065 .7613 9803 9612 .9426 9246 9070 .6930 .8734 .8373 .8117 .8264 .7927 .7635 .7613 .7142 .7162 .6407 .6006 .5737 .5245 .4768 9510 .9238 .8865 .6544 .6227 .7064 .6300 .6355 .5914 .4371 .4019 .4411 .2714 .2714 .2714 .2714 .2744 .4761 .4371 .4019 .411 .2719 .2214 .4503 .5002 .5643 .5026 .3556 .3258 .3139 .2751 .2274 .3223 .3404<</td><td>1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 20% 24% 28% 32% 9901 9904 9709 9615 9524 5444 9346 3259 9174 9625 6772 7655 7561 7432 7182 6844 6504 6104 5739 9706 5423 9151 6890 8638 8396 8163 7939 7722 7513 7116 6570 6575 5164 7322 7223 721 7577 7377 7322 7313 7116 6520 5164 4323 4104 3704 3349 2751 2217 2324 9515 9057 7903 7462 7050 6663 6320 5645 5066 4556 4323 4104 3704 3349 2751 2214 1432 9325 8535 7793 7107</td></t<>	1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 20% 24% 26% 9901 9604 9709 9615 9524 9434 9346 9259 9174 9001 8929 6772 8936 6621 .8475 .8333 8065 .7613 9803 9612 .9426 9246 9070 .6930 .8734 .8373 .8117 .8264 .7927 .7635 .7613 .7142 .7162 .6407 .6006 .5737 .5245 .4768 9510 .9238 .8865 .6544 .6227 .7064 .6300 .6355 .5914 .4371 .4019 .4411 .2714 .2714 .2714 .2714 .2744 .4761 .4371 .4019 .411 .2719 .2214 .4503 .5002 .5643 .5026 .3556 .3258 .3139 .2751 .2274 .3223 .3404<	1% 2% 3% 4% 5% 6% 7% 8% 9% 10% 12% 14% 15% 16% 16% 20% 24% 28% 32% 9901 9904 9709 9615 9524 5444 9346 3259 9174 9625 6772 7655 7561 7432 7182 6844 6504 6104 5739 9706 5423 9151 6890 8638 8396 8163 7939 7722 7513 7116 6570 6575 5164 7322 7223 721 7577 7377 7322 7313 7116 6520 5164 4323 4104 3704 3349 2751 2217 2324 9515 9057 7903 7462 7050 6663 6320 5645 5066 4556 4323 4104 3704 3349 2751 2214 1432 9325 8535 7793 7107				

* The factor is zero to four decimal places

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

	•	S 1
n	L	$\frac{1}{(1+r)'}$
$PVIF_{ti} = \sum_{i=1}^{t}$	(l+r)'	= <u> </u>

û a yema mila	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	\$5%	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	0.9005	0 7947	0.767-
2	1.9704	1,9416	1.9135	1.0861	1.8594	1.8334	1.0080	1,7833	1.7591	1.7355	1.6901	1.6467	1.6257	1 6052	1 5656	1 6370	4 4620	0.7013	0.7576
з	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	7 2459	2 1743	7 4065	1.9212	1.3335	1.3315
4	3.9020	3.8077	3.7171	3.6299	3.5460	3,4651	3.3672	3,3121	3.2397	3 1699	3 0373	2.9137	2 8550	2.2403	2 6001	2.1003	7,4043	1.0604	1.7663
5	4.8534	4,7135	4.5797	4,4518	4.3295	4.2124	4.1002	3.9927	3 8897	3 7908	3 6048	3 4 3 3 1	1 3522	3 9743	2.0001	2.0001	2.4043	2.2410	2.0957
					•		-						0.0022	3.2143	0.1414	2.3306	2,1434	2.5320	2.5452
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	1 1055	-		
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	4.0396	3.9310	3,3233	3.0205	2.1584	2 \$342
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 4075	4.0300	2.0112	3.6046	3.2423	2,9370	2.6775
9	8.5660	8,1622	7.7861	7,4353	7.1078	6.8017	6.5152	6.2469	5 9952	5 7590	5 3782	A 9464	4 7740	4.0430	4.2020	3.6312	3,4212	3.0758	2.7860
10	9,4713	8.9826	8,5302	8,1109	7,7217	7.3601	7.0236	6 7101	6 4177	6 1446	5 6502	5 7161	\$ 0109	4.0003	4.3030	4.0310	3,3655	3.1842	2.8681
								0.1101	0.4177	0,1440	3.6302	3.2101	J.0100	4.8332	4.4941	4,1925	3.6819	3.2609	2.9304
11	10.3676	9.786B	9.2526	8.7605	8,3064	7,8869	7 4987	7 1390	6 8052	6 4961	5 0177	6 45 37	5 77 77	E 0000					
17	11,2551	10.5753	9,9540	9.3851	8.8633	8.3838	7 9477	7 5361	7 1507	6 8 1 27	6 1944	5.4321	5.2337	5.0206	4.6360	4.32/1	3.1757	3.3351	2.9776
13	12,1337	11.3484	10 6350	9 9856	9 3936	B 8577	9 1677	7 9019	7 4969	7 4024	0.1244	5.0003	2.4206	5.19/1	4.7932	4.4392	3.8514	3,3866	3.0133
14	13.0037	12 1062	11 2961	10 5631	9 8986	9 7950	9 7466	0 3443	7 7063	7.1034	6.4233	3.8424	5.5831	5.3423	4,9095	4.5327	3.9124	3,4272	3.0404
15	13 8651	17 8491	11 9379	11 1184	10 1797	9 7477	0.1433	0.2441	0.0002	1.0001	6.6282	6.0021	5.7245	5.4675	5.0081	4,6106	3.9616	3,4587	3.0609
	10.0001	12.0400			(0,5)3)	3.1122	9.1079	0,0095	a.0601	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	9.4465	8,8514	8.3126	7.6237	6.9740	6.2651	5.9542	5 6685	5 1624	4 7296	4 0333	3 5076	3 0000
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	3.5477	3.0002
18	\$6.3983	14,9920	13.7535	12.6593	11.6896	10,8275	10.0591	9.3719	8,7556	8.2014	7.2497	6 4674	6 1290	5.8178	5 2732	4.9172	4 0700	3 5 304	3.0971
19	\$7.2260	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	4.0722	4.00033	3.5234	3.1039
20	18.0456	16.3514	14,8775	13.5903	12.4622	11,4699	10.5940	9,8181	9.1285	8.5136	7.4694	6 6731	6 7593	5 9788	5 3522	4.0433	4.0307	3.9300	3.1090
													4.2000	0.0100	0.0021	4.0030	9.0103	3 3436	31129
25	22.0232	19,5235	17,4131	15.6221	14.0939	12.7834	11.6536	10,6748	9,8226	9.0770	7.6431	6 8779	6 4641	6 0971	5 4669	4 0476	4 4 4 7 4	3 65 40	1 4 0 0 0
30	25.8077	22.3965	19.6004	17.2920	\$5.3725	13,7648	12,4090	11.2578	10.2737	9 4 2 6 9	8.0552	7 0027	6 5660	6 1772	6 6100	4.0700	4.1474	3 3640	31220
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	6.0336	5.5100	4.0000	4.1001	2.2623	31242
50	39,1961	31,4236	25.7298	21.4822	18.2559	15,7619	13,8007	12.2335	10.9617	9.9148	R 3045	7 1327	6 6605	C 2463	5.6844	4 0000	4,1039	3.3/12	3 1250
60	44.9550	34.7609	27,6756	22.6235	18.9293	16.1614	14.0392	12.3766	11 0460	9 9677	P 3240	7 1401	6 6651	5 3403	5.55653	4.8000	4.1000	3.5/14	3 1250
														1.2412		*	- 15h/		4 1 250



ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 21 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 terms as used in finance:

	(i)	Financial intermediaries.		(2 marks)
	(ii)	Risk-return trade off.	<i>k</i> ∼	(2 marks)
	(iii)	Stakeholder management.	CON	(2 marks)
(b)	Describe	three motives of holding inventory.	20.	(6 marks)

(c) Zeltex Ltd.'s shares cost Sh.120 each and pay no dividends. The possible prices that the company's shares might sell for at the end of the year with the respective probabilities are provided below:

Price	Probability
Sh.	Frodability
115	0.10
120	0.10
125	0.20
130	0.30
135	0.20
140	0.10

Required:

- (i) The expected return of the company's shares.
- (ii) The standard deviation of return.

QUESTION TWO

(a) Firms strive to achieve objectives which at times overlap with each other and in some cases conflict with each other.

With reference to the above statement, discuss four overlaps that could arise in the course of a firm's effort to achieve its objectives. (8 marks)

(b) Umbo Ltd. is evaluating two mutually exclusive projects, A and B. Both projects are expected to cost Sh.8 million. However, an additional Sh.1 million investment in working capital will be required if the firm were to invest in project A and Sh.1.5 million for Project B.

Project A has an estimated useful life of five years while Project B has an estimated useful life of 4 years. Estimated net operating cash flows (NOCF) from each investment in each year are given as follows:

Year	PRO	JECT
	Α	В
	Sh."000"	Sh."000"
1	2,500	3,500
2	3,000	3,500
3	3,500	3,500
4	2,800	3,500
5	2,000	-

(4 marks)

(4 marks) (Total: 20 marks)

Additional information:

- 1. The resale values for Project A and Project B at the end of their useful life are estimated at Sh.200,000 and Sh.300,000 respectively.
- 2. Cost of capital is projected at 14%.

Required:

(i)	Net present value (NPV) for Project A and Project B.		(10 marks)
(ii)	Advise the company on which project to undertake.	-	(2 marks)
			(Total: 20 marks)

QUESTION THREE

- (a) Describe four forms of dividend payments that a company could utilise to pay its shareholders. (8 marks)
- (b) Mazeras Ltd. is considering an investment of Sh.20,000 that will generate a perpetual after tax annual cash flow of Sh.2,000. The required rate of return is 8%.

Required:

- (i) The investment's profitability Index (PI). (3 marks)
- (ii) Advise the company whether to undertake the investment, based on the profitability index obtained in (b) (i) above. (2 marks)
- (c) Explain two advantages of using private placement when issuing long-term debt. (4 marks)

O

(d) John Malech deposits the following amounts at the end of each year in a savings account paying an annual interest rate of 4% compounded semi annually:

Year	End of year deposits (Sh.)
1	4,000
2	8,000 🗸 🔿 🍾
3	7,000 🖓
4	10.000

Required:

The value of the account at the end of year 4.

(3 marks) (Total: 20 marks)

QUESTION FOUR

- (a) In relation to financial markets, outline four benefits that could accrue to investors from using the Central Depository System in securities trading. (4 marks)
- (b) Kingstone Omondi plans to make a constant deposit into his savings account at the start of each year over a period of four years.

He expects the sum deposited to earn interest at the rate of 8% each year compounded annually. Omondi expects to raise Sh.1,500,000 after four years in order to finance a capital investment.

Required:

The annual deposit into his savings account.

(c) Ushindi Ltd.'s capital structure which is considered optimal, is as follows:

	Sh."000"
Ordinary share capital (Sh.10 Par value)	40,000
Reserves	20,000
12% Debenture (Sh.100 Par value)	40,000
	100.000

The firm's management are considering raising an additional Sh.20 million to finance an expansion programme. The company expects to generate Sh.2 million from internal sources.

(4 marks)

Additional information:

The firm will issue new ordinary shares at Sh.25 each to raise desired external equity. A floatation cost of 1. Sh.2 per share will be incurred.

2. The company will issue new 14% redeemable debentures to raise desired debt capital. The issue price will be at Sh.90 subject to a floatation cost of Sh.10 per unit issued. The debentures will mature after 10 years. Par value of each unit is Sh.100.

- 3. Corporation tax rate applicable is 30%.
- 4. The most recent ordinary dividend paid is Sh.3.0 per share, while future dividends shall grow at the rate of 5% each year in perpetuity.

	Requ	ired:	
	(i) ⁻	The cost of retained profit.	(2 marks)
	(ii)	The cost of new ordinary share capital.	(2 marks)
	(iii)	The cost of new 14% redeemable debt.	(3 marks)
	(iv)	The firm's weighted marginal cost of capital (WMCC).	(5 marks) (Total: 20 marks)
QUES	TION I	TIVE	
(a)	Expla	in the following principles of Islamic Banking and Finance:	
	(i)	Paying or charging an interest (Riba).	(2 marks)

- Investing in businesses involved in prohibited activities (Haram). (ii)
 - (2 marks)
 - (iii) Speculation (Maisir). (2 marks) Uncertainty and risk (Ghara
- (iv)(2 marks)
- Summarise four roles of the Capital Markets Authority (CMA) or similar authority in your country. (b) (4 marks)
- Baraka Ltd. has provided the following forecasted financial information for the year ending 30 June 2019: (c)

	Sh."000"
Sales – (all credit)	7,200
Average trade receivables	612
Finished goods	400
Work-in-progress (WIP)	700
Raw materials (balance held)	300
Trade payables	260

The gross profit margin is 25% on sales. Raw materials are 80% of the cost of sales. All purchases are also made on credit.

Assume that the calendar year has 365 days and that inventory levels are constant throughout the year.

Required:

(a)

Calculate the following:

		AD24 Page 3
(vi)	Cash operating cycle	(2 marks) (Total: 20 marks)
(ν)	Trade receivables collection period.	(1 mark)
(iv)	Finished goods holding period.	(1 mark)
(iii)	Work-in-progress (WIP) period.	(1 mark)
(ii)	Trade payable days.	(1 mark)
(i)	Raw material holding period.	(2 marks)

Present Value of 1 Received at the End of <i>n</i> Periods:
$P \vee IF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$

Period	1%	2%	3%	4%	5%	5%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	284	3.74	268
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	9259	9174	9091	89.79	2772	8000	9424		- 204		201		364
2	.9803	.9612	.9426	.9246	.9070	.8900	8734	.8573	8417	B264	7972	7695	7564	.0021	.0413	.8333	.8065	./013	./5/6	.7353
3	.9706	.9423	.9151	.6890	.8638	8396	.0163	7938	.7722	7513	7118	\$7:0	6575	.743Z	.7182	,6344	.6304	.6104	5739	.5407
4	.9610	.9238	,0685	.8548	.8227	.7921	.7629	.7350	7084	6830	6355	5921	5719	6677	5150	.3107	.0240	.4768	4348	.3975
5	.9515	,9057	.8626	.8215	.7835	.7473	.7130	6806	6499	6209	5674	5194	4970	4761	4374	.4623	.4230	.3/25	3294	.2923
												3144		.4701	.4371	.4019	.3411	2910	.2495	.2149
6	.9420	,6000	.8375	.7903	.7462	.7050	.6663	6302	.5963	.5645	.5066	4556	4323	4304	3704	3344	7761	2074	4000	
7	.9327	.8706	.8131	.7599	.7107	,6651	.6227	.5835	.5470	5132	4523	3996	3759	3538	3139	2764	2210	.2274	1450	.1560
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	4039	.3506	3269	3050	2660	2121	1790	4100	.1432	.1162
9	.9143	,8368	.7664	.7026	.6446	.5919	.5439	.5002	.4504	.4241	.3606	3075	284.3	2630	2255	1029	1445	1004	.1085	.0834
10	9053	.8203	,7441	.6756	.6139	.5584	.5083	.4632	4224	.3855	.3220	.2697	2472	.2267	1911	1615	1164	0847	0622	.0628
																		,0047	.0623	.0462
, 11	.8963	8043	.7224	.6496	.5847	.5266	.4751	4289	.3875	.3505	.2675	2366	.2149	1964	1619	1346	0938	0662	0471	0340
12	.8674	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	1869	1685	.1372	1122	0757	0517	.0472	0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	2897	.2292	1821	.1625	1452	1163	0935	0610	0404	0271	0494
14	,6700	.7579	.6611	.5775	,5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	0985	.0779	0492	0316	0205	.0134
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	1401	1229	1079	.0835	.0649	0397	0247	0155	0000
																			.0100	4033
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	.1455	1078	.0929	0802	0600	0451	0258	0150	0089	0054
18	.8360	.7002	.5674	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	1690	0508	0376	0208	0136	0068	0034
19	.8277	.8864	,5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	0703	.0596	0431	0313	0168	0097	0051	0033
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	2145	.1764	.1486	1037	.0728	.0611	.0514	0365	0261	0135	0072	0039	0023
											\mathcal{N}								.0000	.4021
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	.\$314	.0994	.0754	.0573	.0334	0196	.0151	.0116	.0070	.0042	0015	0006	0002	0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	0460	.0316	.0221	.0107	.0053	0037	.0026	.0013	.0007	0002	.0001		.0001
50	,6080	.3715	.2201	.1407	.0072	.0543	.0339	.0213	.0134	.0085	.0035	.0014	0009	.0006	.0003	.0001				• •
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	0099	.0857	.0033	.0011	.0004	.0002	0001						
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• The fac	tor is ze	ero la fa	ur decin	nal place	s			\sim												
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Present Value of any unuity of 1 Per Period for n Periods:

	-	۱- ۱ ۱۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰
$n_{\text{ME}} = \sum_{n=1}^{n}$	ι	(1+r)"
$P \vee IP_{r1} = \sum_{t=1}^{r}$	$\frac{1}{(1+t)'}$	<u> </u>

Balancus	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	15%	184	10%	2.44		
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.0760							104	2074	24%	25%	32%
2	1.9704	1.9416	1.9135	1_8961	1,8594	1.8334	1 8080	1 7833	1 7604	0.9091	0.8929	0.0772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2 5774	2 6 3 4 3	1.7300	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
4	3,9020	3.8077	3,7171	3,6299	3.5460	3.4651	3 3872	3 3424	2.0313	4.4063	2.4038	2.3216	2.2832	2.2459	2.1743	2.1065	1.9013	1.8684	1,7663
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4 1002	3 9977	3.2337	3,1033	3.0373	2.9137	2.8550	2.7962	2.6901	2.5887	2.4043	2.2410	2.0957
					•			0.0021	4.0037	3,7908	3.5040	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		2 0007							
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5 2064	5 0330	4 8694	4.1114	7.0091	3.7545	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
6	7.6517	7,3255	7,0197	, 6.7327	6,4632	6.2098	5.9713	5 7456	5 534R	5 3340	4.3638	4.2683	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
9	8.5660	8.1622	7.7861	7,4353	7,1078	6.8017	6.5152	6.2469	5 9967	5 7540	4,3070	4.5369	4.4873	4.3436	4.0776	3.8372	3,4212	3.0758	2,7860
10	9.4713	6.9626	8.5302	8,1109	7,7217	7.3501	7.0236	6.7101	5 4177	6 1446	5.6500	4.3464	4,7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
									4.4447	0.1440	3.6302	3.2161	5.0188	4.8332	4.4541	4.1925	3.6819	3.2689	2.9304
11	10.3676	9,7868	9.2525	8.7605	8.3064	7.8869	7,4987	7,1390	6 8052	6 4951	5 0 7 7 7	\$ 4677	6						
12	11.2551	10.5753	9,9540	9.3651	B.8633	8.3838	7.9427	7.5361	7 1507	6 9137	5.5311 6 1944	5.4327	5.2337	5.0286	4.6560	4.3271	3,7757	3,3351	2.9776
13	12.1337	11.3484	10.6350	9.9856	9,3936	8.8527	8.3577	7.9038	7.4869	7 1034	6 4735	5,0003	5.4206	5.1971	4,7932	4.4392	3.8514	3.3668	3.0133
14	13.0037	12,1062	11.2961	10.5631	9,8986	9,2950	8.7455	8 2442	7 7867	7 1667	9.4200 6.6000	3.04Z4	3,5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
15	13.8651	12,8493	11.9379	11,1184	10,3797	9.7122	9,1079	8 5595	8 0607	7 6061	6 P100	6.0021	5.7245	5.4675	5.0061	4.6106	3.9616	3,4587	3.0609
									4.030)	7.0001	0.0103	9.1922	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	0.000.							
17	15.5623	14.2919	13,1661	12.1657	11.2741	10.4773	9,7632	9.1216	8 5436	8 0215	7 4 4 9 5	0.2001	5.9542	0.6685	5.1624	4.7296	4.0333	3.5026	3.0682
18	16.3983	14,9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	3 7556	8 2014	7 2497	6.3129	6.0472	5.7487	5,2223	4.7746	4.0591	3.5177	3.0971
19	17.2260	15.6785	14.3238	13,1339	12.0853	11.1581	10,3356	9,6036	8 9501	8 3649	7 3650	0.4014	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3 1039
20	18.0456	16.3514	14.8775	13.5903	12.4622	11,4699	10.5940	9.8181	9 1285	8 5136	7.3030	6,0304	6.1982	5.8775	5.3162	4.6435	4.0967	3.5386	3.1090
										0.0100	1,4034	0.4231	6.2393	5.9268	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 8770							
30	25.8077	22.3965	19.6004	17,2920	15,3725	13,7648	12,4090	11.2578	10 2737	9 4 7 6 9	8.0552	0.0/29	5.4541	6.09/1	5.4669	4.9476	4.1474	3 5640	3 1220
40	32.8347	27.3555	23.1148	19,7928	17,1591	15.0463	13.3317	11.9246	10,7574	9 7791	8 743A	7.0027	0.3650	6.1/72	5.5168	4.9769	4.1601	3.5693	3 1242
50	39,196±	31.4236	25.7298	21.4822	18.2559	15,7619	13.8007	12.2335	10.9617	9.9148	9 3045	7 1 3 3 7	0.0416	6.Z335	5,5482	4.9966	4,1659	3.5712	3.1250
60	44.9550	34,7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9 9672	P 3240	7.1404	0.0000	0.2463	0.0541	4.9995	4.1666	3.5714	3 1 250
								/		2.997 £	4.9240	7,1401	0.0001	6 2402	5.5553	4,9999	4.1667	3.5714	3 1250



ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 27 November 2018.

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

QUESTION ONE

(a) 👘	Differentiate between "	primary market" and "secondary market".	(4 marks)
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(b) In relation to Islamic finance, explain four sources of finance.

A businessman wants to save for the university education of his son. The businessman estimates that the education (¢) expenses will be Sh.1 million per year for four years when his son joins university in 16 years time. The expenses will be payable at the beginning of the years. He expects the annual interest rate of 8% over the next two decades. (Assume that the deposit is made at the end of the year) \sum

Required:

Calculate the amount of money that he should deposit in the bank each year for the next 15 years to take care of his son's university education expenses. (4 marks)

Baldwin Ronny borrowed Sh.5 million from a bank at the rate of 15% per annum. The loan is to be repaid in equal (d) instalments at the end of each year for the next three years. Interest on the loan is to be paid on a reducing balance basis.

Required:

	Prepare a loan amortisation schedule.	(4 marks)
		(Total: 20 marks)
QUE	STION TWO	
(a)	Outline two reasons for the time preference for money.	(2 marks)

- Explain four factors to be considered while formulating the dividend policy. (8 marks) (b)
- The following is an extract from the statement of financial position of EPSY Ltd. as at 30 June 2018: (c)

	Sh."000"
Ordinary shares of Sh.50 each	5,200
Reserves	4,850
9% preference shares of Sh.100 each	4,500
14% loan notes	5,000
Total long-term funds	<u>19,550</u>

Additional information:

- The ordinary shares are quoted at Sh.80 per share. Ordinary shareholders expect cash dividend of Sh.4 per share 1. and a dividend growth at the rate of 12% at the end of every year.
- 2. The preference shares which are unredeemable are quoted at Sh.72 per share.
- 3. The loan notes are quoted at par.
- 4. The corporate rate of tax is 33% per annum.

Required:

The weighted average cost of capital using market value.

(10 marks) (Total: 20 marks) AD24 Page 1 Out of 3

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Time Allowed: 3 hours.

(8 marks)

QUESTION THREE

(a) Explain three reasons for the regulation of financial markets in your country.

(6 marks)

(b) The following is an extract from the financial statements of Takuy Ltd. for the year ended 31 December 2016 and 2017:

	Year 2017	
	Sh. "Million"	
Sales	80	
Cost of sales	56	

	Year 2016	Year 2017
	Sh. "Million"	Sh. "Million"
Inventory	9	12
Accounts receivable	12	16
Accounts payable	7	10

The financial year for Takuy Ltd. has 365 days.

Required:

Calculate the following:

- (i) Operating cycle.
- (ii) Cash operating cycle.
- (c) Jimia Brothers have provided the following information regarding their business:
 - 1. The estimated sales are Sh.50,000 in December 2018, Sh.55,000 in January 2019 and Sh.60,000 in February 2019. All sales will be in cash.
 - 2. Their estimated purchases are Sb 20,000 in December 2018, Sh.22,000 in January 2019 and Sh.25,000 in February 2019. The payments for the purchases will be made after a lag of one month. Outstanding on the account of purchases in November 2018 is Sh.22,000.
 - 3. The rent per month is Sh.5,000.
 - 4. Salaries and other expenses, payable in cash are expected to be Sh.15,000 in December 2018, Sh.18,000 in January 2019 and Sh.20,000 in February 2019.
 - 5. They expect to buy furniture worth Sh.25,000 on cash payment in January 2019.
 - 6. The cash balance at present is Sh.5,000. Their target cash balance, however is Sh.8,000.

Required:

Prepare a statement showing the surplus or deficit in relation to the minimum cash balance required. (8 marks) (Total: 20 marks)

QUESTION FOUR

- (a) Distinguish between "internal sources of finance" and "external sources of finance", giving an example in each case. (4 marks)
- (b) Outline four advantages of retained earnings as a source of finance. (4 marks)

(c) Mahdady Ltd. are evaluating two mutually exclusive projects, x and y.

The details of the projects are given as follows:

Project x:

The cost of project is Sh.2,000,000. It is expected to generate an annual net cash inflow of Sh.250,000 each year to perpetuity.

Project y:

This project will cost Sh.1,500,000. It is expected to have a useful life of 3 years with a scrap value of Sh.300,000 after 3 years.

This investment will require an initial investment of working capital of Sh.200,000 at the start (Year 0) which will however be recovered at the end of the asset's useful life.

AD24 Page 2 Out of 3

(4 marks) (2 marks) The estimated pre-tax cash flow from this project excluding provision for depreciation in each year are given as follows:

Year:	1	2	3
	Sh."000"	Sh."000"	Sh."000"
Pre-tax cash flow	1.200	1.400	1.300

Additional information:

- 1. The firm provides for depreciation on a straight line basis.
- 2. Cost of capital is 10% and the corporation tax rate applicable is 30%.

Required:

(i)	Net present value (NPV) for project x and y.	(10 marks)

(ii) Advise the company on which project to undertake.

QUESTION FIVE

(a) State four causes of agency conflict between shareholders and independent auditors. (4 marks)

- (b) Citing three reasons, explain why firms should focus on value maximisation as their main objective instead of profit maximisation. (6 marks)
- (c) Harold Mutiso bought shares of ABC Ltd. at a price of Sh.40 each. The forecasted market price for each share and dividend payable on each share in each year over the next three years from now are given as follows:

Year	Market price per share	e Dividend per share
	(MPS)	(DPS)
	Sh.	Sh.
1	42	2
2	44	O [▶] 2.5
3	45 😔	3.5

Required:

(iii)	Coefficient of variation.	(2 marks) (Total: 20 marks)
(ii)	Standard deviation of return.	(4 marks)
(i)	Expected rate of return from the shares.	(4 marks)

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AD24 Page 3 Out of 3

(2 marks)

(Total: 20 marks)

		рv	Æ.	,=1/	(1+r)) ⁿ = (]+r)"	4												
Period	1%	2%	3%	4%	5%_	6%	7%	6%	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	6696	8621	8475	8333	8065	7813	7576	7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8570	.8417	.8264	7972	7695	.7561	7432	7182	6944	.6504	6104	5739	5407
з	9706	.9423	.9151	.8890	.0638	.8396	.8163	.7938	.7722	.7513	.7118	6750	6575	.6407	.6086	5787	.5245	.4758	4348	3975
4	.9610	9238	.8665	.8548	.8227	.7921	.7629	7350	.7084	.6830	.6355	5921	.5718	.5523	.5158	.4623	4230	3725	3294	2923
5	.9515	9057	.8626	.6219	.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	4123	4104	3704	2240	3764	2274	4000	
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	4523	3996	1759	3538	3139	.3343	2210	.2214	1890	.1580
8	.9235	.8535	.7894	.7307	.6768	.6274	.5620	5403	5019	4665	4039	3506	3769	3050	2660	7376	1700	4100	1006	.1162
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	5002	4604	4241	.3606	3075	2843	2630	2255	1938	1443	1084	.1085	.0004
10	.9053	.8203	.7441	.6756	.6139	,5584	.5083	.4632	.4224	.3055	.3220	.2697	2472	.2267	.1911	.1615	.1164	.0647	0623	.0462
. 11	.8963	8043	.7224	.6496	.5847	.5268	.4751	4289	3875	3505	2875	2366	2149	1954	1619	1746	0000	0660	0.170	0040
12	.8874	.7885	.7014	.6246	.5568	.4970	4440	3971	3555	3186	2567	2076	1869	1685	1372	1121	0757	.0517	0367	.0340
13	.8787	.7730	.6810	.6006	.5303	4686	.4150	3677	.3262	2897	2792	1821	1625	1452	1161	0015	0640	.0317	.0337	.0250
14	,6700	.7579	6611	5775	.5051	.4423	.3876	.3405	.2992	.2633	2046	1597	1413	1252	0985	0779	0493	0316	0205	.0184
15	.8613	.7430	.6419	.5553	-4810	.4173	.3624	3152	.2745	.2394	1827	1401	1229	1079	.0635	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	1631	1229	1069	0930	0708	0541	0320	A193	0118	0079
17	8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	2311	1978	1456	1076	.0929	.0802	.0600	0451	0258	0150	0089	0054
19	.8360	.7002	Jb74	.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	.116	0829	0703	0596	0431	0313	0169	0097	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	.4775	.3751	.2963	.2330	.1842	.1450	1160	0923	• 0588	0378	0304	0245	0160	0105	0046	0024	0010	0006
30	7419	.5521	.4120	.3083	.2314	.1741	1314	0994	0754	0503	0334	.0196	.0151	0116	0070	0042	0040	00011	0002	0001
40	6717	4529	.3066	.2083	.1420	.0972	.0568	0460	.0318	0221	.0107	.0053	0037	0026	0013	0007	0002	0001	.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	1.0057	.0033	,0011	0004	.0002	0001				-		
									<u>></u>									-		
* The fac	tor is ze	ero to fo	ur decin	nai place	\$			\mathcal{V}												
							$\mathbf{\hat{O}}$	×												
							5					-								

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

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

 $PV1F_{r1} = \sum_{t=1}^{n} \frac{1}{(1+r)^{t}} = \frac{1-\frac{1}{(1+r)^{n}}}{r}$

Capture of S	1%	2%	3%	4%	5%	6%	7%	6%	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 8777	0.0500	0.000					
2	1.9704	1.9416	1.9135	1,0061	1.8594	1.8334	1.8080	1,7833	1 7591	1 7355	1 6901	1 6467	1.6067	0.8521	0.8475	0.8333	0.8065	0.7613	0.7576
Э	2.9410	2.8839	2.8286	2,7751	2.7232	2,6730	2.6243	2.5771	2.5313	2.4869	2 4019	2 3 2 1 6	1 0237	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3 0373	2 9117	2.2032	2.2409	2.0743	2,1065	1.5813	1.8684	1.7663
5	4.8534	4,7135	4,5797	4.4518	4,3295	4.2124	4.1002	3.9927	3.6897	3,7908	3 6048	3 4 3 3 1	3 3522	2.7302	2.0901	2.5687	2,4043	2,2410	2.0957
												0.4001	1.3322	3.2143	3.1272	5 2306	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	16847	2 4970	1 1068			
7	6.7282	6.4720	6,2303	5.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.0684	4,5638	4.2683	4 1604	4 03.96	3.95/0	3.3200	3.0205	2.7594	2 5342
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 4973	4 1436	4.0776	3.0046	3.2423	2.9370	2.6775
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 3070	3.0312	3 4212	3.0758	2 7860
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	4.2030	4.0010	3.3535	3.1642	2.8681
														4.0004	4,4341	4.1220	3.6913	3.2689	z.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7,0069	7,4987	7,1390	6.0052	6.4951	5.9377	5,4527	5.2337	5 0286	4 6560	4 3971	3 7767		
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3638	7,9427	7.5361	7.1607	6.8137	6.1944	5 6603	5.4206	5 1971	4 7937	4.3277	3.1131	3,3351	2 9776
13	12.1337	11.3484	10.6350	9.9856	9.3936	6.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5 583 (5 34 23	4 9095	4,4332	3.8314	3.3658	3.0133
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	4.5327	3.3124	3,4212	3.0404
15	13.8651	12,6493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6 8109	6.1422	5 8474	\$ \$755	5.0916	4.0100	3.3010	3,4587	3.0609
															9,0319	4.6793	4.0013	3.4834	3 0764
16	14.7179	13.5777	12,5611	11.6523	10 8378	10.1059	9.4466	8.8514	6.3126	7.8237	6.9740	6.2651	5 9542	5 6685	5 1624	4 7000	4 0393		
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8,5436	6.0216	7.1196	6.3729	6 0472	5 7487	5 2223	4.7230	4.0333	3.5026	3 0682
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 2712	4.0420	4.0393	3,5177	3.0971
19	17.2260	15,6785	14.3238	13,1339	12.0653	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5 8775	5 3167	4.9122	4.0122	3.3234	3 1039
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	5.9286	5 3527	4.0435	4 1103	3 5386	31090
26																4 0030	4,1103	3.3438	31129
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	6 097 1	5 4669	4 9476	A \$474	3 6040	24020
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	3.3540	31220
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 1649	3.57(5	31242
οų CD	39.1961	31.4236	25.7298	21.4622	18.2559	15.7619	13.8007	12.2335	10.9617	9.9146	8.3045	7.1327	6,6605	5.2463	3 5541	4 9395	4.1000 A 1666	2 5711	3 1 2 5 0
50	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	4.99999	4 1667	3.571.4	1,250
																4.0000	1 1001	9.9114	11400

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	. 26	25	24	23	22	21	20	10	18	10	15	14	13	12	11	10	٩	8	7	6	5	4	ω	~	-	n/r
56.4811	54.9318	53.3978	51.8790	50.3752	48.8864	47.4123	45.9527	44.5076	43.0769	41.6603	40.2577	38.8690	37.4941	36,1327	34.7849	33.4504	32.1291	30,8209	29,5256	28.2432	26.9735	25,7163	24.4716	23.2392	22.0190	2012100	10,4004	RUC7 11	16.0969	14.9474	13.8093	12.6825	11.5668	10.4622	9.3685	8.2857	7.2135	6.1520	5.1010	4.0604	3.0301	2.0100	1 0000	1%
71.8927	69.5027	67,1595	64.8622	62.6100	60,4020	58.2372	56.1149	54.0343	51.9944	49.9945	48.0338	46.1116	44.2270	42.3794	40.5681	38.7922	37.0512	35.3443	33,6709	32.0303	30.4219	28,8450	27.2990	25,7833	24.2974	217123	21 0.0121	00.0101	17,2934	15.9739	14.6803	13,4121	12.1687	10.9497	9,7546	8.5830	7.4343	6.3081	5.2040	4.1216	3.0604	2.0200	1 0000	1 2%
92.7199	89.0484	85.4839	82.0232	78.6633	75,4013	72.2342	69.1594	66.1742	63.2759	60.4621	57,7302	55.0778	52.5028	50.0027	47.5754	45.2189	42.9309	40,7096	38,5530	36.4593	34.4265	32,4529	30.5368	28.6765	26.8704	25.1180	23.4144	20,1009	18,5989	17.0863	15.6178	14.1920	12.8078	11.4639	10.1591	8.8923	7.6625	6,4684	5.3091	4.1836	3.0909	2.0300	1000	3%
121.0294	115.4129	110.0124	104.8196	99.8265	95.0255	90.4091	85.9703	81.7022	77.5983	73.6522	69.8579	66.2095	62.7015	59.3283	56.0849	52.9663	49.9676	47.0842	44.3117	41.6459	39,0826	36.6179	34.2480	31.9692	29.7781	27.6712	25.0315	21.0240	20.0236	18.2919	16.6268	15.0258	13.4864	12.0061	10.5828	9.2142	7.8983	6.6330	5,4163	4.2465	3.1216	2.0400	1 0000	4%
159.7002	151.1430	142.9933	135.2318	127.8398	120.7998	114.0950	107.7095	101.6281	95,8363	90.3203	85,0670	80.0638	75.2988	70.7608	66.4388	62.3227	58,4026	54,6691	51.1135	47.7271	44.5020	41.4305	38,5052	35,7193	33.0660	2015200	28 1324	23.0070	21.5786	19.5986	17.7130	15,9171	14.2068	12.5779	11.0266	9.5491	8.1420	6.8019	5.5256	4.3101	3,1525	2.0500		5%
212.7435	199.7580	187.5076	175.9505	165.0477	154.7620	145.0585	135,9042	127.2681	119.1209	111.4348	104.1838	97.3432	90,8898	84.8017	79.0582	73.6398	68.5281	63.7058	59.1564	54.8645	50.8156	46.9958	43,3923	39,9927	36.7856	1040r	20,2123	23.0723	23.2760	21.0151	18.8821	16.8699	14.9716	13.1808	11.4913	9.8975	8.3938	6.9753	5.6371	4.3746	3.1836	2.0600	1 0000	6%
285.7493	266.1209	247.7765	230.6322	214.6096	199.6351	185.6403	172.5610	160.3374	148.9135	138.2369	128.2588	118.9334	110.2182	102.0730	94,4608	87.3465	80.6977	74.4838	68.6765	63.2490	58.1767	53,4361	480057	4.8652	40.9955	37 3790	2010102	20 2403	25.1290	22.5505	20,1406	17.8885	15.7836	13.8164	11.9780	10.2598	8.6540	7.1533	5,7507	4.4399	3.2149	2.0700	1.0000	7%
386.5056	356,9496	329.5830	304.2435	280,7810	259.0565	238,9412	220.3159	203.0703	187.1021	172.3168	158.6267	145.9506	134.2135	123.3459	113.2832	103.9659	95.3388	87.3508	79.9544	3,1059	66.7648	60,8933	55,4568	50.4229	45.7620	41 4463	37 4502	33 7503	27.1521	24.2149	21.4953	18.9771	16.6455	14.4866	12.4876	10.6366	8.9228	7.3359	5.8666	4.5061	3.2464	2.0800	1.0000	8%
525,8587	481.5218	440,8457	403.5281	369.2919	337.8824	309.0665	282.6298	258.3759	236,1247	215.7108	196.9823	179.8003	164.0370	149.5752	1303075	(24, 1354	12.9682	102.7231	93.3240	84,7009	76,7898	69,5319	62.8733	56.7645	51,1601	46.0185	41 3013	36 0737	29.3609	26.0192	22.9534	20.1407	17.5603	15.1929	13.0210	11.0285	9.2004	7.5233	5.9847	4.5731	3 2 7 8 1	2.0900	1.0000	%6
718.9048	652.6408	592,4007	537.6370	487.8518	442.5926	401.4478	364.0434	330.0395	299.1268	271.0244	245.4767	222.2515	201.1378	181.9434	164.4940	148.6309	134.2099	121.0999	109,1818	98.3471	88,4973	79,5430	71,4027	64,0025	57.2750	51 1591	45 5992	40 5447	31.7725	27.9750	24.5227	21.3843	18.5312	15.9374	13.5795	11.4359	9.4872	7.7156	6.1051	4,6410	3.3100	2.1000	1.0000	10%
986,6386	887.9627	799.0655	718.9779	646.8269	581.8261	523,2667	470.5106	422.9825	380.1644	341,5896	306.8374	275.5292	247.3236	221.9132	199.0209	178.3972	159,8173	143.0786	127.9988	114.4133	102.1742	91,1479	81.2143	72.2651	64.2028	56.9395.	50.3959	44 5008	34,4054	30,0949	26.2116	22.7132	19.5614	16.7220	14.1640	11.8594	9.7833	7.9129	6.2278	4.7097	3.3421	2.1100	1.0000	11%
1358.230	1211.813	1081.083	964.3595	860,1424	767.0914	684.0102	609.8305	543.5987	484.4631	431,6635	384.5210	342.4294	304,8477	271.2926	241.3327	214.5828	190.6989	169.3740	150.3339	133.3339	118.1552	104.6029	92.5026	81.6987	72.0524	63 4397	55 7497	49 8817	37.2797	32.3926	28.0291	24,1331	20.6546	17.5487	14,7757	12.2997	10.0890	8.1152	6.3528	4.7793	3.3744	2.1200	1.0000	12%
1874,165	1657.668	1466.078	1296.529	1146.486	1013.704	896, 1984	792.2110	700.1867	618.7493	546,6808	482.9034	426.4632	376.5161	332.3151	293,1992	258.5834	227,9499	200.8406	176.8501	155.6196	136,8315	120.2048	105,4910	92.4699	80,9468	70.7494	61.7251	40.0777	40.4175	34.8827	29.9847	25.6502	21,8143	18.4197	15.4157	12.7573	10,4047	8.3227	6.4803	4.8498	3.4069	2.1300	1.0000	13%
2590,565	2271.548	1991,709	1746,236	1530.909	1342.025	1176.338	1030.998	903.5071	791.6729	693.5727	607.5199	532.0350	465.8202	407.7370	356.7868	312,0937	272.8892	238,4993	208.3327	181.8708	158.6586	138.2970	120,4360	104.7684	91,0249	78.9692	68.3941	50 1176	43,8424	37.5811	32.0887	27.2707	23.0445	19.3373	16.0853	13.2328	10,7305	8.5355	6.6101	4.9211	3,4396	2,1400	1.0000	14%
3585.128	3116.633	2709.246	2354.997	2046.954	1779.090	1546.165	1343.622	1167.498	1014.346	881.1702	765.3654	664.6655	577,1005	500.9569	434.7451	377.1697	327.1041	283.5688	245.7120	212.7930	184,1678	159.2764	137.6316	118.8101	102.4436	88.2118	75.8364	65 0751	47.5804	40.5047	34.3519	29.0017	24.3493	20.3037	16.7858	13.7268	11.0668	8.7537	6.7424	4.9934	3.4725	2.1500	1.0000	15%
4965.274	4279.546	3688.402	3178.795	2739,478	2360.757	2034.273	1752.822	1510.191	1301.027	1120.713	965.2698	831,2671	715,7475	616.1616	530.3117	456.3032	392.5028	337.5024	290,0883	249,2140	213,9776	183,6014	157,4150	134,8405	115.3797	98.6032	84 1407	71 6730	51,6595	43.6720	36.7862	30.8502	25.7329	21.3215	17.5185	14.2401	11.4139	8.9775	6.8771	5.0665	3.5056	2.1600	1.0000	16%
6879,291	5878.881	5023.830	4293.017	3668,391	3134.522	2678.224	2288.225	1954.894	1669.994	1426,491	1218.368	1040,486	888,4494	758.5038	647.4391	552.5121	471.3778	402.0323	342,7627	292,1049	248.8076	211.8013	180.1721	153,1385	130.0329	110.2846	93,4056	78 9792	56.1101	47.1027	39,4040	32.8239	27.1999	22.3931	18.2847	14,7733	11.7720	9.2068	7.0144	5.1405	3.5389	2.1700	1.0000	17%

Future Value Factor for an Ordinary Annuity (Interest rate = r, Number of periods = n)

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ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 22 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.

OUESTION ONE

(a)	Distinguish between a "risky asset" and a "risk-free asset".	(2 marks)
(b)	In relation to financial markets, describe four characteristics of a good market.	(8 marks)

Stanely Kamaki is considering buying ordinary shares of ABC Ltd. which are currently trading at a market price per (c) share (MPS) of Sh.25. The forecasted market price of each share after one year and their probability of occurrence in с⁰ different states of nature are given as follows:

State of nature	Probability	10.	Forecasted MPS at the end of the year	
Boom	0.4		30	
Average	0.3	A.	28	
Recession	0.3	<i>,</i> Ф,	20	
Required: (i) The expected rat	e of return from in	vestment in the	shares.	(4 marks)
(ii) The standard dev	iation of the expe	cted return. Con	nment on the result.	(4 marks)
(iii) Coefficient of va	riation.			(2 marks)
· · · · · · · · · · · · · · · · · · ·				(Total: 20 marks)

QUESTION TWO

Discuss four differences between Islamic banking and conventional banking. (a)

Johnstone Muli plans to retire in 15 years time and intends to receive an annuity of Sh.50,000 per annum for the next (b) 20 years after retirement. The annual interest rate is 6%. He expects to receive the first annuity payment at the end of the 15th year from today which is the same day as his retirement date.

Required:

The amount that he should invest today in order to receive his expected retirement annuity. (6 marks)

Fanisi Limited borrowed Sh.10,000,000 from Nisil Bank Ltd. The loan has an interest rate of 14% and it is to be (c) repaid in four equal instalments payable at the end of each year for the next four years.

Required:

	Prepare a loan amortisation schedule.	(6 marks) (Total: 20 marks)
QUES (a)	STION THREE Explain three types of dividend policy that could be adopted by firms in your country.	(6 marks)

The earnings per share (EPS) and dividend per share (DPS) for Mogotio Ltd. for each of the years ended 31 December (b) 2014, 2015, 2016 and 2017 were as follows:

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(8 marks)

Year ended 31 December	EPS (Sh.)	DPS (Sh.)			
2014	12.50	5.50			
2015	14.60	6.05			
2016	13.50	6.66			
2017	16.00	7.32			

Required:

The dividend cover and the dividend payout ratio for each of the years ended 31 December 2014, 2015, 2016 and 2017. (4 marks)

(c) Online Ltd. sells goods currently in terms of "net 45". The firm is considering relaxing its terms of sale to "net 60". The firm's annual sales is currently estimated at Sh.5,000,000. However, it is expected to increase by 20% if the terms of sale are relaxed. The variable cost to sales ratio is 40%.

Additional information:

- 1. Bad debts are expected to remain at 5% of the firm's credit sales.
- 2. Debt management and collection expenses are expected to increase by 5% per annum from the current level of Sh.400,000.
- 3. Credit sales are estimated to be 80% of total sales. The remainder of the sales are cash sales.
- 4. The minimum required rate of return by investors is 12% per annum.
- 5. Corporate tax rate applicable is 30%.
- 6. The average collection period is currently 50 days. This is expected to increase to 75 days after relaxing the terms of sale.

(Assume a 360-day year)

Required:

Determine whether the firm should relax its terms of sale

QUESTION FOUR

(a) In relation to the goals of a firm, discuss the following:

(i)	Two financial objectives of a firm	(4 marks)
(ii)	Two non-financial objectives of a firm.	(4 marks)

(b) Upendo Ltd. is contemplating raising an additional Sh.5,000,000 to finance an expansion programme. The firm's capital structure which is considered to be optimal is given as follows:

	Sh,"000"
Ordinary share capital (Sh.10 par value)	10,000
Reserves	5,000
14% debenture capital (Sh.100 par value)	6,000
15% preference share capital (Sh.20 par value)	<u>9,000</u>
	<u>30,000</u>

Additional information:

- 1. New ordinary shares will be issued at Sh.50 each, subject to a floatation cost of 10% of issue price. The firm's dividend policy is that future dividends are expected to grow at 5% each year in perpetuity. The firm paid dividend of Sh.2 per share in the current year.
- New 14% irredeemable debentures will be issued at Sh.120 each. Floatation cost of Sh.5 per unit issued will be incurred.
- 3. New 15% preference shares will be issued at par. A floatation cost of Sh.2 per share issued will be incurred.
- 4. Corporate tax rate applicable is 30%.
- 5. The firm expects to generate Sh.1,000,000 from internal sources to finance this expansion programme.

Required:

Weighted marginal cost of capital (WMCC) of the firm.

(12 marks) (Total: 20 marks)

(10 marks) (Total: 20 marks) C

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QUESTION FIVE

(a) A vast range of funding alternatives are available to companies for financing development projects.

In the light of the above statement, summarise four factors to consider when choosing methods of financing a project. (8 marks)

(b) Majani Limited intends to raise a long-term debt amounting to Sh.18,000,000 at an interest rate of 14% per annum. The money could be invested in either project A or project B. The projects are expected to generate the following net cash inflows:

Period (year)	Project A	Project B				
	Sh.	Sh.				
ł	3,000,000	8,000,000				
2	1,000,000	7,500,000				
3	4,000,000	5,000,000				
4	6,000,000	2,000,000				
5	8,000,000	4,500,000				

Required:

(i)	The net present value (NPV) for each project.	(8 marks)
(ii)	Giving appropriate reason(s), advise the management of Majani Ltd. on the project to invest in.	(2 marks)
(iii)	Highlight two disadvantages of using the NPV to evaluate investment projects.	(2 marks) I: 20 marks)
	50Theaternya	

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Present Value of 1 Received at the End of *n* Periods: $P \lor lF_{r,n} = 1/(1+r)^n = (1+r)^m$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	74%	28%	324	364
1	.9901	.9804	.9709	.9615	9524	9434	93.46	9754	0174	9094	0020	0770	0000					2011		
2	.9803	.9612	.9426	9246	.9070	8900	8734	8573	8417	8264	.0323	7096	74.01	.8621	.8475	.8333	.8065	.7013	.7576	.7353
3	.9706	.9423	.9151	.8890	.8638	8396	.0163	7938	7722	7513	7110	6750	.7001	.7432	.7162	6344	.6504	,6104	5739	.5407
4	.9610	.9238	.8095	.8548	.8227	.7921	7629	7350	7084	6830	6355	5921	4710	.6407	5150	.5/8/	.5245	.4768	4348	3975
5	.9515	.9057	.8626	.8219	.7835	7473	.7130	6806	6499	6209	5674	5194	1977	4764	.3130	4023	.4230	.3723	3294	2923
										.0100		31.34		.4/6/	.4371	.4013	.3411	2910	2495	.2149
6	.9420	.8680	.0375	.7903	,7462	.7050	.6660)	.6302	.5963	.5645	5066	4556	4323	4104	3704	2240	3764	2274	1000	
7	.9327	.8706	.6131	.7599	.7107	.6651	.6227	.5835	5470	5132	4523	3996	3750	2510	3136	.3343	.2731	.2214	.1890	.1580
8	.9235	.8535	.7894	.7307	.6768	.6274	.5620	5403	5019	4665	4039	3506	3269	3050	2660	22226	4760	1200	.1432	1162
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	4604	4241	3606	3075	2843	2630	2000	1030	1443	1084	.1085	.0854
10	9053	.6203	.7441	.6756	.6139	,5584	.5063	4632	4224	3855	3220	2697	2472	2000	1011	1616	1164	.10047	.0822	.0528
												.2007		.4401			.1104	.0047	0623	.0462
. 11	8963	8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	2875	2366	7149	1954	1619	1346	0938	0460	0470	03.40
12	8074	.7885	.7014	.6246	.5568	.4970	4440	3971	3555	3186	2567	2076	1869	1685	1372	1122	0757	0617	0367	0340
13	.8787	7730	.6810	.6006	.5303	.4688	.4150	3677	.3262	2897	2292	1821	1625	1452	1163	0935	0610	0404	00074	.0250
14	.8700	.7579	.6611	.5775	.5051	.4423	.3870	3405	2992	2633	2046	1597	1413	1252	0985	0333	0403	0346	0205	.0184
15	.8613	7430	.6419	.5553	.4810	4173	.3624	3152	2745	2394	1827	1401	1229	1079	0835	0649	0192	0347	0205	.0135
																0040	.0331	.0247	.0155	0033
16	.6526	7264	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	1631	1229	1069	6930	0709	0541	0320	0102	0140	0070
17	.8444	7142	.6050	.5134	.4363	.3714	.3166	2703	2311	1978	1456	1076	0929	0802	0600	0451	0320	0150	.0110	.0073
18	.8360	.7002	.5674	.4936	.4155	.3503	.2959	2502	.2120	1799	1300	0946	0808	0691	0500	0376	0208	.01.00	0003	0004
19	.8277	6864	.5703	.4746	.3957	.3305	.2765	2317	1945	1635	1161	0829	0703	0596	0434	0310	0156	.0110	.0068	.0039
20	6195	.6730	.5537	.4564	.3769	.3118	2584	.2145	1784	1486	1037	0729	0611	0514	0365	0261	0126	.0032	.0031	0029
														.0014	.0.00	.0201	0133	.0072	.0039	.0021
25	7798	6095	4776	.3751	.2953	.2330	.1842	.1460	1160	.0923	.0586	0378	0304	0245	0160	0105	0046	0021	0010	0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	0994	0754	.0573	A3 3	0196	0151	0115	0070	0042	0016	0006	0010	0003
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	0460	0318	.0221	907	0053	0037	0026	0013	0007	0000	0000	0002	.0001
50	.6080	.3715	2261	.1407	.0872	.0543	.0339	0213	0134	0085	• 0035	0014	0009	0006	00013	0001		.0001		•
60	.5504	,3049	1697	0951	.0535	.0303	.0173	0099	.0057	0038	0011	0004	0002	0001		.0001	•	•	•	
										J.				.0001	•	-		•		
									\sim	. Y										

* The factor is zero to four decimal places

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

 \mathcal{O}

		l
	1_	(l+r)"
$PVIP_{i1} = \sum_{i=1}^{n}$	(1+r)'	r

	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	2.4%		
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9269	0.0174	0.9001	0.0000				104	104	24 /	28%	32%
2	1.9704	1.9416	1,9135	1,8861	1.8594	1.8334	1.8080	(7911	(7504	0.2031 57256	0.6529	0.0772	0 8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
3	2,9410	2.8839	2.8286	2.7751	2.7232	2.5730	2 6 2 4 3	7 5774	3.6313	7.4000	1.5901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
4	3.9020	3,8077	3,7171	3.6299	3,5460	3.4651	3 3872	3 31 74	1 2207	2.4053	2.4016	2.3216	2.2632	2.2459	2.1743	2.1065	1.9613	1.0504	1 7663
5	4.8534	4.7135	4.5797	4.4518	4.3295	4 71 74	4 1002	1 0017	3.2397	3,1533	3.0373	2.9137	2.8550	2.7982	2.6901	2.5687	2.4043	2.2410	2.0957
								3.3321	3.0037	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 5 2 2 9	1 4050	1 3663									
7	6.7282	6.4720	6.2303	6.0021	5,7864	5 5824	5 3993	5 2004	4.46JJ	4.3333	4,1114	3.8687	3.7645	3.6847	3.4976	3 3255	3.0205	2.7594	2 5342
8	7.6517	7.3255	7.0197	6.7327	6 4632	6 2099	5 0717	5.7400	5.0330	4,6564	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
9	8,5560	8.1622	7,7861	7.4353	7 1078	6 8017	6 6150	0.1400 C 3460	3.3340	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3,4212	3.0758	2.7860
10	9.4713	8.9826	8.5302	8,1109	7.7217	7 3601	7 0226	6 7 107	0.9902	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4 0310	3,5655	3,1842	2.8681
							1.0156	Q./ IQ)	0.4117	6 1446	5.6502	5,2161	5.0163	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 4997	7 1 200	6.0060										
12	11.2551	10.5753	9.9540	9.3851	8.8633	R 3839	7 8427	7.6304	0.0052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3,7757	3.3351	2.9776
13	12.1337	11.3484	10.6350	9,9856	9 3936	A 8527	9 3577	7.0030	7.1007	6.8137	6,1944	5.6603	5.4206	5.1971	4,7932	4.4392	3.8514	3.3868	3.0133
14	13.0037	12,1062	11.2961	10.5631	9 8986	9 2960	8 7455	0.0000	7.4869	7.1034	6 4 2 3 5	5.8424	5.5831	5.3423	4.9095	4 5327	3.9124	3.4272	3 0404
15	13.8651	12,8493	11.9379	11.1184	10 3797	9 7+23	0.7433	0.2442	7,7962	7.3567	6.6282	6.0021	5.7245	5,4675	5.0081	4.6106	3.9616	3,4587	3 0609
					10.0101	2.7122	9.1079	8,0090	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 9379	10 1060	0.4400												
17	15 5623	14.2919	13 1661	12 1657	11 2741	10.1033	5.4400	8,8314	8.3126	7,8237	6.9740	6.2651	5.9542	5.6685	5,1624	4.7296	4.0333	3.5026	3.0692
18	16 3983	14 9970	13 7535	12 6597	11 6000	10.4772	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
19	17 2260	15 6785	14 1218	17 1339	12.0055	10.02/6	10.0591	9.3719	6.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5,2732	4.8122	4.0799	3,5294	3 1039
20	18.0456	16 3514	14 8775	13 5903	12 46 22	11.1201	10.3356	9.6036	8 9501	8 3649	7.3658	6.5504	6 1982	5.8775	5.3162	4.6435	4.0967	3.5386	3.1090
			14.0110	10.0300	12.4022	11,4633	10.5940	9.8181	9.1285	0.5136	7 4694	6.6231	6.2593	5 9288	5.3527	4.8696	4,1103	3.5458	31129
25	22 0232	19 5235	17 4131	15 6221	14 .0010	17 7934													
30	25.8077	22 3965	19.6004	17 7920	15 3705	13 7640	11.0036	10.6/48	9.8226	9.0770	7.8431	6 87 29	6.4641	5.0971	5,4669	4.9476	4,1474	3.5640	3 1 2 2 0
40	32,8347	27 3555	23 1148	19 7929	17 150	15.046	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
50	39,1961	31 4236	25 7 294	21 4822	18 3550	15.20103	13.3317	11.9246	10.7574	97791	8.2438	7.1050	6.6418	6.2335	5,5482	4.9966	4.1659	3.5712	3 1250
60	44.9550	34 7009	27 6756	21.4022 22.6214	10.2339	10.7619	13,0007	12.2335	10 9617	9 9148	6.3045	7.1327	6,6605	6.2463	5.5541	4.9995	4.1656	3.5714	3 1250
		5 QQQ	2	11.0130	10.3233	10-10-14	14.0392	12.3766	11 0480	9.9672	e 3240	7,1401	6.6651	6,2402	5 5553	4.9999	4.1667	3.5714	3 1250



ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 28 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.

OUESTION ONE

(a)	Highlight four factors that co	ould influence the am	ount of cash that a firm should hold.	(4 marks)
(b)	Describe three challenges fa	ced by Islamic financ	ial institutions (IFIs) in your country.	(6 marks)
(c)	The following data relates to	Takymatt Ltd.:	S.	
	Selling price per unit	Sh.80	0	
	Variable cost per unit	Sh 50	•	

Variable cost per unit	Sh.50 🔗
Fixed cost per unit	Sh.10
Annual credit sales	300,000 units
Collection period	2 months
Rate of return	16%

The company is considering a change or policy that would relax its credit policy.

Additional information:

- ١. Sales were expected to increase by 20%.
- Collection period would change to 3 months. 2.
- 3. Bad debt losses were expected to be 3% of the increased sales.
- 4. Collection costs were expected to increase by Sh.20,000.

Required:

Determine whether Takymatt Ltd. should relax its credit policy.

(10 marks) (Total: 20 marks)

QUESTION TWO

- Highlight three advantages and three disadvantages of private placement as a source of finance to the issuing (a) company. (6 marks)
- Explain two assumptions that justify the use of weighted average cost of capital (WACC) as a discount rate when (b) undertaking capital budgeting decisions. (4 marks)
- The following extract of the statement of financial position of Mapato Ltd. shows the capital structure of the company (c) as at 31 December 2016: CL 46669

	Sn.**000**
Ordinary share capital (Sh.125 par value)	62,500
Reserves	<u>121,500</u>
Shareholder's funds	184,000
14% debentures (Sh.500 par value)	<u>118,500</u>
·	302.500

The management of the company consider the above capital structure optimal.

AD24 Page 1 Out of 3

Additional information:

- 1. The company's earnings before interest and tax (EBIT) average is Sh.75 million per annum. These earnings are expected to be maintained in the foreseeable future.
- 2. The ordinary shares are currently trading at Sh.400 per share.
- 3. The market price of the debentures is Sh.525 per debenture.
- 4. The corporate tax rate is 30%.
- 5. The firm adopts 100% dividend payout ratio as its dividend policy.

Required:

(i)	The cost of equity.	(3 marks)
(ii)	The after-tax cost of debt.	(2 marks)
(iii)	Market-weighted average cost of capital (WACC).	(5 marks) (Total: 20 marks)

QUESTION THREE

- (a) Discuss three limitations of profit maximisation as an objective of a firm.
- (b) Juma Masese receives an annuity of Sh.20,000 payable once every two years. The annuity stretches out to over 20 years. The first payment occurs two years from today. The annual interest rate is 6%.

Required:

Calculate the present value (PV) of the annuity.

(c) Kipande Ltd., a manufacturing company intends to invest in a new product line. This requires an investment of Sh.10 million in plant and machinery. The production is expected to last for five years and will have a salvage value of Sh.2 million at the end of this period.

Additional information:

- 1. The annual contribution from the product will be Sh.4,600,000.
- 2. Fixed operating costs excluding depreciation would amount to Sh.950,000 per annum.
- 3. As a result of the expansion of the product line, working capital is expected to increase by Sh.1,500,000 at the start of production and will be released at the end of the economic life of the project.
- 4. The company employs a straight line depreciation policy.
- 5. The corporate tax rate is 30% per annum.
- 6. The company's cost of capital is 12% per annum.

Required:

Using the Net Present Value (NPV) approach, advise Kipande Ltd. on whether to invest in the new product line.

(10 marks) (Total: 20 marks)

(10 marks)

QUESTION FOUR

- (a) Describe five functions of a financial system in your country.
- (b) Madar Ltd. has had stable earnings growth rate of 8% per annum for the past 10 years. In year 2016, the company paid dividends of Sh.2.6 million on net income of Sh.9.8 million. However, in 2017 earnings are expected to increase to Sh.12.6 million and Madar Ltd. plans to invest Sh.7.3 million in a plant expansion. This one-time unusual earnings growth will not be maintained though, and after 2017, the company will return to its previous 8% earnings growth rate.

The company's target debt ratio is 35%.

Required:

Calculate Madar Ltd.'s total dividends for the year 2017 under each of the following policies:

- (i) The company's year 2017 dividend payment is set to force dividends to grow at the long run growth rate in earnings. (2 marks)
- (ii) The company continues with the year 2016 dividend payout ratio. (2 marks)
- (iii) The company uses a pure residual policy with all distributions in the form of dividends. (2 marks)

AD24 Page 2 Out of 3

(4 marks)

(6 marks)

(c) Polycarp Omondi expects to make a deposit of Sh.500,000 in his savings account at the end of the year 2017. He intends to make a deposit of Sh.100,000 at the end of each subsequent year. The sum deposited will earn interest at the rate of 6% per annum compounded annually.

Required:

The cumulative amount that will be in his account at the end of the year 2020.	(4 marks)
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QUESTION FIVE

(a)

(4 marks)

(Total: 20 marks)

(4 marks)

- (b) Citing three reasons, justify why there is need for a company to pay stable dividends. (6 marks)
- (c) Distinguish between "systematic risk" and "unsystematic risk".

Outline four roles of a finance manager.

(d) The forecasted rate of return on the stock of firm X Ltd. in different states of nature and their probability of occurrence are given as follows:

State of nature	e Probability	Forecasted return (%)	
Most Ficalu	0.3	15	
MOSt fikely	0.5	10	
Recession	0.2	<u></u>	
Required:	c ^o	y	
(i) Expec	ted return for the stock.		(2 marks)
(ii) The st	andard deviation of return.		(4 marks)
	A.		(Total: 20 marks)
	GOTHER		

KASNEB

ATD LEVEL II

FUNDAMENTALS OF FINANCE

Time Allowed: 3 hours. TUESDAY: 23 May 2017. Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. QUESTION ONE Differentiate between "business risk" and "financial risk". (4 marks) (a) (6 marks) (b) Discuss three advantages of leasing as a source of finance.

- (c) Ufanisi Ltd. is considering raising additional Sh.10 million to finance an expansion programme.
- The firm's capital structure which is considered to be optimal is given as follows:

(%) Equity capital 60 8% debt capital (Sh.100 par) 30 10% preference share capital (Sh.50 par) 10 <u>100</u>

The firm expects to raise Sh.2 million from internal sources.

The firm pays a constant ordinary dividend of 81.2 per share in each year. This is expected to remain so in the foreseeable future.

Additional information:

- The firm will issue new ordinary shares at a current price of Sh.25 per share and will incur a floatation cost of 1. Sh.5 per share.
- New 8% irredeemable debentures will be issued at par of Sh.100 each. Floatation cost of 5% of par value will be 2. incurred.
- 3. New 10% preference shares will be issued at Sh.60 each. Par value of each share is Sh.50. Floatation cost of Sh.2 per share will be incurred.
- 4. Corporate tax rate applicable is 30%.

Required:

Weighted marginal cost of capital of the firm.

(10 marks) (Total: 20 marks)

QUESTION TWO

- Highlight four circumstances under which a company would prefer to use debt financing to other sources of finance. (a) (4 marks)
- (4 marks) (b) Describe two factors that influence the credit period extended by a company to its customers.
- Kenland Ltd. is considering its capital budget for the year 2018. The following information relates to four mutually (c) exclusive projects:

Project:		P1	P2	P3	P4	
Amounts: Initial cash outflows		Sh. "000"Sh. "000"(8,000)(10,000)	Sh. "000" (20,000)	Sh. "000" (16,000)		
Cash inflows:	Year 1	2,000	4,000	8,000	6,000	
	Year 2	4,000	6,000	12,000	10,000	
	Year 3	6,000	6,000	10,000	8,000	AD24 Page 1
						ites i tage -

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Additional information:

- 1. The firm has a capital budget ceiling of Sh.20 million and the cost of capital is 10%.
- 2. The cash flows are assumed to occur at the end of the year.

Required:

Advise the company on the project to undertake using the following investment appraisal techniques:

(i)	Net present value (NPV).	(6 marks)
(ii)	Profitability index (PI).	(6 marks)
		(Total: 20 marks)

QUESTION THREE

Explain the following principles that govern Islamic finance: (a)

(i)	Principle of equity.	(2 marks)
(ii)	Principle of participation.	(2 marks)
(iii)	Principle of ownership.	(2 marks)

- Describe four financial market participants, citing the role played by each of the participants. (8 marks) (b)
- A prospective investor is considering buying shares of company X which are currently selling at the securities (c) exchange for Sh.100.

The forecasted market price of each share at the end of one year's holding period and the corresponding probability of occurrence are given as follows:

Economic condition	Probability of occurrence	Forecasted market price per share after one year (Sh.)
Poor	0.2	90
Moderate	0.5	110
Good	0.3	120

Required:

(b)

(c)

	(i) [•]	The expected rate of return for company X's share.	(2 marks)
	(ii)	The standard deviation of return for company X's share.	(4 marks) (Total: 20 marks)
QUES (a)	STION F Explai	OUR in three key dates, with reference to dividend payment chronology.	(6 marks)
(b)	Discu	ss two limitations of using a firm's overall cost of capital as an investment discount rate.	(4 marks)
(c)	Stelw: over a	at Onyango borrowed Sh.1,500,000 from a bank at the rate of 1.5% per month. The loan i period of 6 months. Interest on the loan is to be paid on a reducing balance basis.	s to be repaid monthly
	Pequi	nat.	

Prepare a loan amortisation schedule.

(d) Billy Kamar expects to make equal annual payments into his savings account at the beginning of each year over a period of 5 years. The sum deposited will earn interest at the rate of 10% per annum, compounded annually. He will be targeting to raise a cumulative sum of Sh.2,000,000 to undertake a capital investment.

Required:

Determine the annual instalment payment into Billy Kamar's savings account.

(4 marks) (Total: 20 marks)

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(6 marks)

QUESTION FIVE

(b)

(a) Summarise the following categories of agency problem:

(i)	Managers versus owners.	(2 marks)
(ii)	Creditors versus owners.	(2 marks)
(iii)	Owners versus other parties.	(2 marks)
Descri	be two benefits of shareholders' wealth maximisation as an objective of a firm.	(4 marks)

(c) ABC Ltd. expects to make payments of Sh.4,500,000 in the coming year. The firm's investment in marketable securities generates an annual return of 20%.

The firm incurs a cost of Sh.20 per transaction when buying or selling marketable securities.

The minimum cash balance maintained by this company at all times is Sh.10,000. (Assume a 360-day year).

Required:

Using Baumol's model of cash management, determine:

(i)	ABC Ltd.'s optimal cash balance.	(3 marks)
(ii)	Total relevant cost incurred in each year.	(3 marks)
(iii)	The cash conversion cycle (period) in days	(2 marks)
(iv)	Average cash balance that will be maintained by ABC Ltd.	(2 marks) (Total: 20 marks)
	50M	

KASNEB

ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUES	DAY: 22 November 2016.	Time Allowed: 3 hours.
Answe	r ALL questions. Marks allocated to each question are shown at the end of the question. S	how ALL your workings.
QUEST (a)	TION ONE Summarise two differences between "accounting" and "finance".	(4 marks)
(b)	Discuss four ways in which the goals of a business organisation might complement each oth	ner. (8 marks)
(c) Joel borrowed a 3-year loan of Sh.1,500,000 at an interest rate of 9 per cent per annum from saloon car. His employer required a three equal end-of-year repayments.		rom his employer to buy a
	Required: (i) Annual instalment to be paid by Joel at the end of each year.	(1 mark)
	(ii) Loan armotisation schedule.	(3 marks)
(d)	John Mativo promised to give his son Sh.1,000,000 in cash on his 25 th birthday. Today is his son's 16 th birthday. Required:	
	(1) John Mativo intends to make annual payments into a fund after one year. Detern given that the fund would pay interest at the rate of 8 per cent per annum.	nine the annual payments, (2 nĭarks)
	(ii) If he decides to invest a lumpsum in the account after one year and let it compound lumpsum.	und annually, compute the (2 marks) (Total: 20 marks)
OUEST		(

(a) Explain three reasons why a company might decide to issue bonus shares instead of paying cash dividends. (6 marks)

(b) Bright Ltd. is considering a new product line to supplement its current product line. It is anticipated that the new product line will involve an initial cash investment of Sh.1,400,000 at the beginning and Sh.2,000,000 in year 1. After tax cash inflows are expected as follows: Sh.500,000 in year 2, Sh.600,000 in year 3, Sh.700,000 in year 4 and Sh.800,000 each year thereafter through year 10. Though the product line might be viable after year 10, the company prefers to be conservative and end all projections at that time. The company's cost of capital is 15%.

Required:

Advise Bright Ltd. on whether to invest in the new product line using each of the following investment evaluation criteria:

(i)	Net present value (NPV).	(5 marks)
(ii)	Internal rate of return (IRR).	(6 marks)
(iii)	Pay back period (PBP).	(3 marks)
		(Total: 20 marks)

QUESTION THREE

(a) In relation to Islamic finance, explain the following concepts:

(1)	Hibah.	(2 marks)
(i i)	Ijarah.	(2 marks)

- (b) Describe two factors that might have contributed to the growth of financial innovation in your country. (4 marks)
- (c) Wema Ltd. intends to expand its business operations. On 31 October 2016, the company had the following existing and proposed capital structure to support the expansion programme:
 - 1. The existing 9% debentures had a book value of Sh.2,000,000 and a market value of Sh.1,800,000.

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- 2. A 12% preference share capital stands in the books at Sh.4,000,000 (20,000 shares) and has a total market value of Sh.5,000,000.
- 3. There are 100,000 ordinary shares with a current market price of Sh.80 each. The dividend for the year ended 31 October 2016 is expected to be Sh.2.40 per share, and a growth rate of 8% each year for the foreseeable future.
- 4. The company plans to issue 50,000 ordinary shares at a market price of Sh.80 per share. The cost of floating the shares is estimated at Sh.100,000.
- 5. A six year loan of Sh.4,500,000 is to be raised at an interest rate of 10% per annum. A cost of Sh.150,000 will be incurred in raising this loan.

(Ignore taxation).

Required:

- (i) Current weighted average cost of capital (WACC) for Wema Ltd. using market values. (6 marks)
- (ii) Expected weighted average cost of capital (WACC) for Wema Ltd. after the expansion programme. (6 marks)
 (Total: 20 marks)

QUESTION FOUR

(a) Outline four functions of a cash budget.	(4 marks)
--	-----------

- (b) Highlight six demerits of using ordinary share capital in financing a company's operation. (6 marks)
- (c) The following information was extracted from the financial statements of Flight Company Ltd. for the years ended 31 October 2015 and 2016:

	2015	2016
	Sh. "000" 🔿 🔿 🗸	Sh. "000"
Finished goods	24,000 🔿 •	27,000
Work-in-progress	15,000 - 10	18,000
Stocks-Raw materials	21,000	24,000
Purchases	120,000	150,000
Cost of goods sold	180,000	236,000
Sales	_⊘724,000	372,000
Debtors	45,000	54,000
Creditors	27.000	36,000
(Assume a 365-day year).	~	

Required:

OUESTION FIVE

The operating cycle period for each of the two years.

(10 marks) (Total: 20 marks)

(a)	Describe four advantages of establishing a central depository system (CDS).	(8 marks)
(b)	In the context of risk and investment, explain the following terms:	

(i)	Risk-free return.	(2 marks)
(ii)	Expected rate of return.	(2 marks)
(iii)	Average rate of return.	(2 marks)

(c) The following data relates to share Y returns and the corresponding probabilities under different economic conditions:

~

		Snare Y		
Econor	nic condition	Rate of return (%)	Probability	
Growth	I	18.5	0.20	
Expans	ion	16.5	0.40	
Stagnat	ion	10.0	0.25	
Decline	,	-8.0	0.15	
Requir (i)	ed: The expected rate o	f return for share Y.		(2 marks)
(ii)	The standard deviation	ion of return for share Y.		(4 marks) (Totat: 20 marks)
	********	•••••••••••••••••••••••••••••••••••••••	•••••••	
				AD24 Page 2 Out of 2

Present Value of 1 Received at the End of *n* Periods: $PV1F_{r,n} = 1/(1+r)^n = (1+r)^{-n}$

Period	1%	2%	3%	4%	5%	6%	7%	8%		10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
\$.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	.8696	.8621	.8475	.8333	6065	7813	7576	7353
2	.9603	.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	5767	.5245	4768	4348	3975
4	.9610	,9238	.8085	,8548	.6227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.57,18	5523	.5158	4823	.4230	3725	3294	2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6006	.6499	.6209	.5674	5194	4972	.4761	.4371	.4019	.3411	2910	2495	2149
6	.9420	.8990.	.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	.3536	.3139	.2791	.2218	:1776	1432	.1162
8	.9235	.8535	.7854	.7307	.6768	.6274	.5820	.5403	.5019	.4665	4039	.3506	.3269	.3050	.2660	.2326	1789	.1386	1085	0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2643	.2630	.2255	.1938	.1443	.1084	0922	.0628
10	.9053	.6203	.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	.7865	.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	.0902	.0600	.0451	.0258	.0150	.0089	0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0606	.0691	.0508	.0376	0208	.0118	8800.	.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	.3110	.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	.01,96	.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	1000.				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.00\$7	,0033	.0011	.0004	.0002	.0001						
											<u>~</u> `									

0

* The factor is zero to four decimal places

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

	I	<u> </u>
$PVIF_{rt} = \sum_{i=1}^{n}$	$\frac{l}{(l+r)'} =$	$\frac{(1+t)^2}{r}$

	1%	2%	3%	4%	5%	<u>6%</u>	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	0.6929	0 8772	0 9696	0.0521	0.0476				
2	1.9704	1.9416	1.9135	1,9961	1.8594	1,8334	1.8080	1,7833	1.7591	t 7355	1 6901	\$ 6467	1.6367	1.0062	0.0473	0.0333	0.8065	0.7013	0.7576
з	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2,4869	2 4018	2 3 2 1 6	7.5615	1.0032	1.3636	1.52/8	1.4568	1.3916	1.3315
4	3.9020	3,8077	3.7171	3.6299	3.5460	3,4651	3,3872	3.3121	3.2397	3 1699	3 0373	2 0137	2.2032	2.2403	2.1743	4.1060	1,9813	1.8684	1.7663
5	4.8534	4.7135	4,5797	4.4518	4.3295	4,2124	4.1002	3,9927	3 8897	3 7904	3 6048	1.4774	2.0000	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
											0.0040	3.4331	3,3322	3.2143	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 7946	1					
7	6,7282	6.4720	6.2303	6.0021	5.7864	5,5824	5,3893	5.2064	5 0330	4 8684	4 5628	4 70001	3.1043	3.664/	3.4976	3.3255	3.0205	2.7594	2 5342
8	7.6517	7.3255	7,0197	6.7327	6.4632	6.2098	5.9713	5 7466	5 5348	5 3349	4.0676	4,2003	4,1004	4.0306	3.8115	3.6046	3.2423	2.9370	2.6775
9	8.5660	8.1622	7,7861	7,4353	7,1078	6.8017	6.5152	6 7459	5 9952	5 7590	6 3363	4.0303	4,48/3	4.3436	4.0776	3.0372	3.4212	3.0758	2.7860
10	9.4713	8,9826	8.5302	0.1109	7,7217	7.360t	7 0736	\$ 7101	6 4177	6 1446	5,3202	4.2464	4.7716	4.6065	4,3030	4.0310	3,5655	3.1842	2.8681
								0.7101	0.4111	0.1440	3.0001	5.2161	5,0188	4.8332	4_4\$41	4.1925	3.6819	3.2689	2.9304
\$1	10.3676	9,7868	9.2526	8,7605	8.3064	7 8869	7 4987	7 1390	6 8050	e	6 0 3 7 7	* ****							
12	11.2551	10,5753	9,9540	9,3851	8.8633	8 3836	7 9477	7 5 3 6 1	7 4607	6,4701	3.3377	3.4327	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2 9776
13	12,1337	11.3484	10.6350	9 9856	9.3936	8 8527	8 3577	7 0010	7.4040	0.01.37	6.1344	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
14	13,0037	12,1062	11.2961	10.5631	9 8986	9 2060	9 7455	8 2445	7.9057	7.1034	6.4235	5,8424	5.5831	5.3423	4.9095	4.5327	3,9124	3.4272	3.0404
15	13.8651	17 8493	11 9379	11 1184	10 3797	9,2300	0.7400	0,2442	7.7862	7.3667	6.6282	6.0021	5.7245	5,4675	5.0081	4.6106	3.9616	3.4587	3.0609
			11,5015		10.3137	3.7122	9.1079	0.0090	8.0607	7.6061	6.0109	6,1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3 0764
16	14 71 79	13 5777	12 5611	11 6523	10 0379	10 1050				•			•						
17	15 5623	14 7919	13 4554	17 1657	11 9744	10.1038	9,4400	8,8314	0.3126	7.8237	6.9740	6.26\$1	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0682
1.9	16 1081	14 0000	13.7656	17 6607	11,2741	10.4773	9,7632	9.1216	6.5436	8.0216	7.1196	6.3729	6.0472	5,7487	5.2223	4.7746	4.0591	3.5177	3.0971
19	17 2200	15 0700	11 1230	12.0353	11.0070	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 (039
20	19 0450	10.0100	14,3230	13,1337	12.0853	11.1561	10.3356	9,6036	8,9501	8.3649	7.3658	6,5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5366	3.1090
20	10.0436	15.3314	14.6/73	15.3903	12.4622	11,4699	10.5940	9.8181	9.1205	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4,1103	3.5458	31129
25	77 0221	10 8 3 3 4																	
2.2	75 8011	19.3233	17,4131	13.6221	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
40	23.00111	22,3363	19.6004	17.2920	15,3725	13.7648	12.4090	11.2578	10.2737	9.4269	0.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4,1601	3,5693	3 1242
50	20 1001	21.3333	23.1148	19./928	17.1591	15.0463	13,3317	11.9246	10.7574	9.7791	6.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
60	33.1301	31.4236	23,7298	21,4022	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
30	44,9000	34,7609	27.6756	22.6235	16,9293	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	1 1 750

KASNEB

ATD LEVEL II

FUNDAMENTALS OF FINANCE

TUESDAY: 24 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

- Outline four advantages that could accrue to a firm from using debt capital over equity capital as a mode of financing. (a) (4 marks)
- Describe three factors that should be considered while evaluating an investment in securities. (6 marks) (b)

Veen

The management of Furaha Ltd. is evaluating five investment projects whose expected cash flows are shown below: (c)

		tear		
Projects	January 2016 Sh. "000"	December 2016 Sh. "000"	December 2017 Sh. "000"	December 2018 Sh. "000"
Α	(120,000)	60,000	<u>,</u> 50,000	50,000
В	(60,000)	(40.000)	50.000	90,000
C	(80,000)	(100,000)	120.000	140.000
D	0	(160,000) 🔗	• 90,000	110,000
Е	(100,000)	20,000	60,000	80,000
Additional i	information:	A Cr		

- Ignore tax and depreciation. The required rate of return on investment is 16%. 2.
- , Required:

Using the net present value (NPV) approach, determine the project(s) that should be undertaken, assuming that capital (10 marks) would be available when required. (Total: 20 marks)

OUESTION TWO

(a)	Highlight four types of alternative investment vehicles available in the financial markets.	(4 marks)
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- Discuss four goals of a firm in your country. (b)
- Delight Ltd.'s capital structure as at 31 December 2014 was as follows: (¢)

	Sh. "000"
Ordinary shares at Sh.0.50 par value	12,000
Reserves	4,000
9% Preference shares at Sh.1.00 par value	6,000
14% Debentures	_8,000
	<u>30,000</u>

Additional information:

- 1. The ordinary shares are quoted at Sh.0.80.
- The next ordinary dividend is estimated at Sh.0.04 growing thereafter at 12% in perpetuity. 2.
- The preference shares are quoted at Sh.0.72 while debentures are quoted at par. 3.
- 4. Corporate tax rate is 30%.

Required:

Weighted average cost of capital using the book value.

(8 marks) (Total: 20 marks)

(8 marks)

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QUE	STIO	N THREE	
(a)	Sum	marise five advantages of preference share capital to shareholders.	(5 marks)
(b)	With	reference to time value of money, explain the following terms:	
	(i)	Present value.	(2 marks)
	(ii)	Future value.	(2 marks)
	(i i i)	Loan amortisation.	(2 marks)
(c)	Jvan of pl	Ltd. uses 2.000 units of stock item K each year. The cost of holding a single item for a year is Sh.2.0 acing an order is Sh.45. The company is considering to double its ordering batches from 200 units to a	0 and the cost 400 units.
	Req	lired:	
	(i)	Economic order quantity (EOQ).	(3 marks)
	(ii)	Number of orders every year.	(2 marks)
	(iii)	Number of days before an order is placed. (Assuming a 365 day - year).	(2 marks)
	(iv)	Advise the management whether the decision to double its ordering batches should be undertaken. (Tota	(2 marks) al: 20 marks)
QUE (a)	STIO! In re	N FOUR elation to Islamic finance, explain the following concepts:	
	(i)	Riba.	(2 marks)
	(ii)	Mudharaba.	(2 marks)
(b)	Sum	marise five reasons why financial markets in developing countries have experienced slow growth.	(5 marks)
(c)	In an inves	investment seminar, one of the facilitations noted that "there are three categories of investors; that stors, risk-neutral investors and risk-taker investors".	is, risk-averse
	With	reference to the above statemer (explain each of the three categories of investors.	(3 marks)
(d)	(i)	Billy Rich intends to deposit Sh.2,400,000 in a bank paying an annual interest rate of 6% compound Determine his bank balance and the amount of interest he will earn after six years.	ed quarterly. (4 marks)
	(ii)	Robert Milele is planning to invest in rental properties. He has approached the local bank for a n and received an offer of Sh. 8 million at an annual mortgage interest rate of 9% for a period compounded monthly.	oortgage loan, 1 of 15 years
		Required:	14 marks)

Determine the monthly mortgage payments to be made by Robert Milele. (4 marks) (Total: 20 marks)

QUESTION FIVE

(a) Discuss four dividend pay-out policies adopted by different companies in your country. (8 marks)

(b) The following information relates to the prices of security Y and security Z and the dividend per share for the last four years.

Year	Dividend per share (Security Y)	Market price (Security Y)	Dividend per share (Security Z)	Market price (Security Z)
	Sh.	Sh.	Sh.	Sh.
ł	2	200	1.5	60
2	3	230	2	65
3	2	210	2	80
4	4	260	3	85
Requ (i)	ifred: The rate of return of security Y and	d security Z.		(3 marks)
(ii)	Expected average return for each s	ecurity.		(3 marks)
(iii)	Standard deviation for each securit	у.		(6 marks) (Total: 20 marks)
				AD24 Page 2 Out of 2

		- PA	ан- _с ,	· · · · ·	(1+1)) - (<u> </u>		_
Period	1%	24	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	26%	32%	36%
1	.9901	.9804	.9709	9615	9524	.9434	.9346	9259	.9174	.9091	.6929	8772	8696	8621	.8475	.8333	8065	7813	7576	7353
2	.9803	.9612	.9426	9246	9070	.8900	8734	8573	.6417	.8264	.7972	7695	7561	.7432	.7182	6944	.6504	.6104	5739	5407
3	.9706	.9423	.9151	9890	.8638	.8396	.0163	.7938	7722	.7513	.7118	.6750	6575	.6407	6086	.5787	.5245	4768	4348	3975
4	.9610	.9238	.6685	8548	.8227	7921	.7629	.7350	7084	.6030	.6355	5921	\$71B	.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	.6880	,8375	.7903	7452	.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	1437	1162
8	.9235	.8\$35	.7894	.7307	.6768	,6274	.5820	5403	.5019	.4665	4039	3506	.3269	.3050	2660	2326	1789	1366	1085	0854
9	.9143	.8368	.7664	,7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	1938	1443	1084	0872	0678
10	.9053	8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0647	0623	.0462
. 11	8963	.0043	.7224	.6496	.\$847	.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	3166	.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	.0700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	2046	1597	.1413	1252	0965	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	8526	.7284	6232	.5339	.4581	.3936	.3387	.2919	.2519	.2175	.1631	1229	1069	.0930	0708	0541	0320	0143	6119	0073
17	8444	7142	6050	.5134	.4363	.3714	.3166	.2703	.2311	1978	.1456	1078	.0929	.0802	.0600	.0451	0258	0150	0089	0054
15	8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	2120	.1799	1300	.0946	.0808	.0691	0508	0376	0208	0118	8300	0039
19	.8277	.6864	.5703	,4746	.3957	.3305	.2765	2317	,1945	.1635	.1161	.0829	0703	.0596	.0431	.0313	.0168	0092	0051	0000
20	8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	1486	1037	.0728	.0611	.0514	.0365	0261	.0135	.0072	.0039	.0021
25	.779B	.6095	4776	.3751	.2953	.2330	.1842	1460	.1160	.0923	0386	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	3065	.2083	.1420	.0972	.0568	0460	.0318	0222	.0107	.0053	0037	.0026	0013	0007	0002	0001		
50	.6080	.3715	2261	.1407	.0872	.0543	.0339	0213	.0134	0085	.0035	.0014	0009	.0005	0003	0001				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	0001			•			
									$\sim $											

* The factor is zero to four decimal places

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

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	S 1
	$\frac{1}{(1+r)^{r}}$
$PVIP_{t} = \sum_{\substack{t=1\\t \neq t}} \frac{1}{(1+t)}$, <u> </u>

0-3y7340(1	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	0.9624	0.0474	0.0333			
2	1.9704	1.9416	1.9135	1.9861	1.8594	1.8334	1.8080	1.7833	1.7591	1,7355	1.6901	1 6467	1 6267	1 0021	0.0413	0.0333	0.8065	0.7813	0.7576
з	Z.9410	2.6839	2.8285	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3716	2 2812	3 2469	7 1 7 4 3	1,3278	1.4068	1.3916	1.3315
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	2.2.400	2.1743	2.1063	1.9813	1.8684	1.7663
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 1477	2.7002	2.0701	2.3687	2.404.3	2.2410	2.0957
														3.2.44	5.1212	2.5506	2.7404	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	3.8687	3 7845	3 6847	3 4975	3 2768	3 0305		
7	6.7282	6.4720	6.2303	6.0021	5,7864	5.5824	5.3893	5.2064	5,0330	4,8684	4,5638	4.2683	4.1604	4 0386	3 8116	3.3233	3.0205	2.7594	2 5342
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	3.0113 4.0776	3.0046	3.2423	2.9370	2.6775
9	8,5660	8.1622	7,7861	7.4353	7,1070	6.8017	6.5152	6.2469	5.9952	5,7590	5.3282	4 9464	4 7716	4 6065	4 2020	3,03/2	3.4212	3.0758	2.7860
10	9.4713	8.9826	8.5302	6,1109	7.7217	7.3601	7.0236	6,7101	6,4177	6,1446	5,6502	5.2161	5 0188	4 8332	4.3030	4.0310	3.5655	3,1842	2.8681
													0.0100	4.0002	4,4241	4,1925	3,6819	3.2689	2.9304
11	10.3676	9,7868	9.2526	8.7605	0.3064	7.8869	7.4987	7.1390	6,8052	6,4951	5.9377	5 4577	\$ 2337	5.0284	4 6560	4 3 3 7 7 4			
12	11.25\$1	10.5753	9,9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.6137	6.1944	5.6603	5 4206	5 1971	4 7031	4.3271	3.1131	3,3351	2.9776
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9036	7.4869	7.1034	6.4235	5 8474	5 5831	\$ 3433	4.7332	4.4392	3,8514	3.3868	3.0133
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	4,9030	9.3327	3.9124	3.4272	3.0404
15	13.8651	12.8493	11.9379	11,1184	10.3797	9.7122	9,1079	8.5595	8.0607	7.6061	6.8109	6 14 22	5 9474	5.4075	5.0001	4.6106	3.9615	3.4587	3.0609
													3.0474	4.9700	5,9316	4,6733	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	6 6547	6 6696	6 1000	4 3000			_
17	15.5623	14.2919	13,1661	12.1657	11.2741	10.4773	9,7632	9,1216	8.5436	8.0216	7.1196	6 3779	6.0477	5.0003	3.1524	4.7296	4.0333	3.5026	3.0682
íB	16.3983	14.9920	13,7535	12,6593	11.6896	10.8276	10.0591	9.3719	6.7556	8.2014	7 7497	6 4674	6.0472	5,7487	3.2223	4.7746	4.0591	3.5177	3.0971
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1501	10,3356	9.6036	8.9501	8.3649	1.3658	6 5504	6.1200	2.0110	3.2732	4.0122	4.0799	3,5294	3.1039
20	18.0456	16.3514	14,0775	13,5903	12.4622	11,4699	10.5940	3.8181	9 1 2 8 5	8 5136	7 4694	6 6 2 3 4	0.1202	0.0775	5.3162	4,6435	4.0967	3.5386	3.1090
												9.92.91	9.2333	3.9266	5.3521	4.8696	4,1103	3.5458	31129
25	22.0232	19.5235	17,4131	15.6221	14.0939	12.7834	11,6536	10.6748	9.8226	9.0770	7.8435	6 8729	6 4641	E 0974	A 1000				
30	25.8077	22,3965	19,6004	17,2920	15.3725	13.7648	12,4090	11.2578	10 2737	9 4 2 6 9	8 0557	7.0027	6.4041	6.VJ() C (TTO	0,4663	4.9476	4,1474	3.5640	3 1 2 2 0
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	6.000	0.1/14	9.9168 6.6400	4.9789	4.1601	3.5693	31242
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	0.0410 8 6605	0.4333 6 3463	0.0482	4,9966	4,1659	3.5712	3.1250
60	44.9550	34,7609	27.6756	22.6235	18.9293	16.1614	14,0392	12 3766	11.0480	9 9672	2 3740	7 1404	0.0000	0.2463	9.0041	4.9995	4.1566	3.5714	3 1250
												1.1401	0.0031	6.2402	3.3553	4.9999	4.1667	3.5714	3 (250

Present Value of 1 Received at the End of *n* Periods: $P \bigvee IF_{e_n} = 1/(1+r)^n = (1+r)^{n}$

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ATD LEVEL II

FUNDAMENTALS OF FINANCE

WEI	DNESI	DAY: 18 November 2015.	Time Allowed: 3 hours.
Ansv	ver AL	L questions. Marks allocated to each question are shown at the end of the question. Sh	ow ALL your workings.
QUE	STIO	N ONE	
(a)	Expl	ain the term "agency conflict".	(2 marks)
(b)	Desc	ribe four roles of a finance manager.	(4 marks)
,(c)	Ana	yse three motives of holding cash by an organisation.	(6 marks)
(d)	Disc	uss four factors to be considered by an organisation when choosing the source of finance.	(8 marks) (Total: 20 marks)
OUF	STIO	N TWO	:
(a)	Citir	ig two reasons, justify the importance of time value of money	(4 marks)
(b)	Expl	ain four factors that affect a company's dividend policy.	(8 marks)
(c)	Kipa milli milli	wa Ltd., a manufacturing company intends to trivest in a new product line. This require on in plant and machinery. The production is expected to last for five years and will hav on.	es an investment of Sh.10 ve a salvage value of Sh.2
	∆dd	itional information:	
	1.	The annual contribution margin from the product will be Sh.4,600,000.	
	2.	Fixed production cost excluding depreciation would amount to Sh.950,000 per annum.	
	3.	As a result of the expansion of the product line, working capital is expected to increa start of production and will be released at the end of economic life of the project.	se by Sh.1,500,000 at the
	4.	The company employs a straight line depreciation policy.	
	5.	The corporate tax rate is 30% per annum.	
	6.	The company's cost of capital is 12% per annum.	
* -,	Re q Usin	uired: g the net present value (NPV), advise Kipawa Ltd. on whether to invest in the new produc	ct line. (8 marks) (Total: 20 marks)
ÓÚI	STIN	N THDEF	
(a)	Expl	ain the following terms as used in cost of capital:	
	(i)	Weighted average cost of capital.	(2 marks)
	(ii)	Marginal cost of capital.	(2 marks)
(b)	Desc	ribe three functions of financial market in your country.	(6 marks)
(c)	The	following information was extracted from the books of Marble Ltd.:	
	Ordi	nary shares (Sh.20 par value) 8.000.000	
	8%1	preference shares (Sh.24 par value) 1,200,000	
	10%	debentures (Sh.100 par value) <u>2,000,000</u>	
	Tota	I capital employed <u>11,200,000</u>	
	-		

The current market price of the above finances are as follows:

1. Ordinary shares, Sh.32 per share inclusive of Sh.2 as floatation costs. Ordinary shareholders expect cash dividends of Sh.4 per share and a dividend growth at the rate of 5% at the end of every year.

AD24 Page 1 Out of 2
	2. The 8% preference shares currently sell at Sh.20 per share.	•
	 The 10% debentures currently sell for Sh.100. The corporate rate of tax is 30% per annum. 	
	Required.	
	The weighted average cost of capital using market value.	(10 marks) (Total: 20 marks)
QUE (a)	STION FOUR Explain four differences between Islamic banking and conventional banking.	(8 marks)
(b)	Explain the following terms as used in the context of risk and investment:	
	(i) Risk.	(2 marks)
	(ii) Systematic risk.	(2 marks)
	(iii) Unsystematic risk.	(2 marks)
(c)	The following data relate to the returns of share Q traded at the securities exchange in your Share Q	country:
	Year Returns	
	2010 -10.00%	
	2012 36.98%	
	2013 15.48%	
	2014 27.04%	
	Required: (i) The average rate of return for share by over the five year period.	(2 marks)
	(ii) The standard deviation of return for share Q.	(4 marks) (Total: 20 marks)
QUE	STION FIVE	
(a)	Distinguish between "working capital" and "operating cycle".	(4 marks)
(b)	Quest Ltd., requires 720,000 units for ten days. The ordering cost per order is Sh.450 and Sh.4.	d the carrying cost per unit is
	Required: The economic order quantity (EOQ).	(2 marks) 🗠
(c)	In an investment seminar, one of the facilitators noted that "depending on the mix of short financing, a company could follow either of the following approaches; matching approa aggressive approach".	term financing and long term ch, conservative approach or
	Required: Discuss each of the three approaches mentioned above.	(6 marks)
(d)	Summarise four cases in favour of retained earnings as an internal source of finance.	(8 marks)
		(Totai: 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	8685	.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	.6660	.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	.0368	.7664	.7026	.6446	.5919	.5439	.5002	4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1064	.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	.0707	7730	.6810	6006	.5303	.4688	.4150	3677	3252	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	.0965	0779	0492	0316	.0205	.0135
15	.8613	.7430	6419	5553	. 49 10	.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	.1970	.1456	.1079	.0929	.080%	.0600	.0451	.0258	.0150	.0089	.0054
18	8360	.7002	5874	.4936	.4155	.3503	.2959	.2502	.2120	1799	.1300	.0946	.0606	0691	0508	0376	0208	0118	.0068	.0039
19	.0277	.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	.3110	.2584	.2145	.1784	.1486	.1037	.0728	.0611	0514	.0365	0261	0135	0072	.0039	.0021
25	.7796	.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	.0065	.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 Applity of 1 Per Period for n Periods:

	C	
	ł _	(l+r)"
$\mathbf{PVIF}_{i1} = \sum_{i \in I}$	$\frac{1}{(1+r)'} =$	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	0.9604	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.6772	0.8696	0.6621	0.8475	0.8333	0.8065	0.7613	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	1.5467	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	3.6077	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	4.4510	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	3.6115	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	8.9626	8.5302	Q.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6,1446	5.6502	5.2161	5.0168	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.6869	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	8,3638	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	11.3464	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	6.7455	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	8.6514	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	12.0653	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.9775	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	9.6181	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

ATD LEVEL II

FUNDAMENTALS OF FINANCE

PILOT PAPER

September 2015.

Time Allowed: 3 hours.

(4 marks)

(10 marks)

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 factors that a company could consider when formulating its dividend policy. (6 marks)

Sh. '000'

8,000

6,000

4,000

4,000

- (b) Outline four advantages of paying scrip dividends by a company.
- (c) The following information was extracted from the books of Kogello Limited as at 31 March 2015:

Ordinary share capital (par value Sh.25) 8% preference share capital (par value Sh.24) 10% preference share capital (par value Sh.20) 10% Debentures

Additional information:

- 1. The market prices per share as at 31 March 2005 were as follows:
 - Ordinary shares 8% preference share 10% preference share
- 2. The market value of 10% debentures as at 31 March 2015 was Sh.5,000,000.
- 3. The corporation tax rate is 30%.
- 4. The company has maintained a payment of an ordinary dividend per share of Sh.3.80 over the past five years.

Required:

•	
The weighted sversge cost of capital (W/A) 1 husing market weighte	
The weighted average cost of capital (where a build market weights.	

Sh

30 20

25

(Total: 20 marks)

QUESTION TWO

(a) In relation to financing of firm's activities, explain the meaning and relevance of the following terms:

(i)	Stock split.	(3 marks)
(ii)	Stock repurchase option.	(3 marks)

(b) Umoja Ltd. is contemplating undertaking any of the following three mutually exclusive projects A, B and C. Each project requires an initial cash outlay of Sh.5 million. Details of each of the projects are given as follows:

Project A

This project is expected to generate an annual net operating cash flow of Sh.2,000,000 each year over its useful life of five years. Estimated re-sale value of the project after 5 years is Sh.500,000.

Project B

This project is expected to generate a net cash flow of Sh.650,000 each year in perpetuity.

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Project C

This investment is expected to have a useful life of 3 years with no resale value at the end of this period. The annual contribution to be generated by the project each year are given as follows:

		Year	
	1	2	3
Contribution (Sh. '000')	2,500	3,000	3,500

The annual fixed operating costs excluding depreciation are estimated at Sh.200,000 per annum. Provide for depreciation on a straight line basis and corporation tax is payable at the rate of 30%. The minimum required rate of return from this investment is 10%.

Required:

Using net present value, advise management of the company on the project to undertake.

(14 marks) (Total: 20 marks)

QUESTION THREE

Super Products Ltd. started operations on 1 April 2014. The company raised the required equity capital of Sh.260 million and debt at an annual rate of interest of 18% before commencing business.

Given below are some statistics extracted from the books of the company in respect of the financial statements prepared to 31 March 2015:

Total fixed assets (NBV) Operating costs (excluding debt interest) Dividend declared and paid Cash and bank balances



80% of the sales are on credit. The current assets on 31 March 2015 consisted of only stock, debtors, cash and bank balances as given above while current liabilities consisted of only creditors and tax provided for in respect of the year ending 31 March 2015. Taxation was provided for at the rate of 30%.

You are provided with the following financial ratios which have been determined from the financial statements of Super Products Ltd:

Fixed assets turnover	1.8 times
Gross profit margin	45%
Stock turnover	4.4 times
Interest cover	4 times
Average debt collection (based on 360 days of the year)	84 days
Current ratio	2.5:1

Required:

(a) In respect of the year ended 31 March 2015, you are required to prepare the company's:

(i)	Income statement.	(8 marks)
(ii)	Statement of financial position.	(8 marks)
	·	

(b) The following statistics have been provided with respect to the industry in which the company operates:

- Acid test ratio
 1.2:1
- Return on equity 21%
- Capital gearing ratio 35%

Required:

Comment on the performance of the company relative to these industry statistics.

(4 marks) (Total: 20 marks)

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QUESTION FOUR

(a) ABC Ltd. earnings and dividends over the last five years have steadily increased as shown below:

Year	EPS	DPS
	Sh.	Sh.
2010	6	2.5
2011	6.5	2.7
2012	7.0	2.8
2013	7.3	3.5
2014	7.5	4.0

Wambua, a prospective investor is considering buying shares of this company which are currently selling at Sh.120 each.

The investor's minimum required rate of return is 16%.

Required:

Advise the investor on whether he should buy the shares of the company or not. (10 marks)

(b) Firms strive to pursue objectives which at times overlap with each other and in some cases conflict with each other. Briefly explain overlaps and conflicts that may arise amongst objectives that firms strive to achieve. (10 marks) (Total: 20 marks)

QUESTION FIVE

(a) AMR Ltd. makes cash payments of Sh.20,000 per week. The interest rates on marketable securities is 10% and every time the company sells marketable securities, it incurs a cost of Sh.30.

Required:

Using Baumol's model in cash management;

- (i) Determine the optimal amount @ marketable securities to be converted into cash every time the company makes the transfer. (4 marks)
- (ii) Determine the total number of transfers from marketable securities to cash per year. (2 marks)
- (iii) Determine the total cost of maintaining the cash balance per year.
- (iv) Determine the firm's average cash balance.
- (b) A company has invested in a project whose return distributions is given as follows:

0

Possible return (%) Probability

0.10	0.05
0.02	0.10
0.04	0.20
0.09	0.30
0.14	0.20
0.20	0.10
0.28	<u>0.05</u>
	<u>1.00</u>

Required:

(c)

Outli	ne five motives of leasing an asset from the point of new of a company.	(5 marks) (Total: 20 marks)
(ii)	The expected return of the project.	(2 marks)
(i)	The asset's risk using the standard deviation.	(3 marks)

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(2 marks)

(2 marks)