TECHNICAL UNIVERSITY OF MOMBASA

School of business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN BACHELOR OF /
COMMERCE/ BUSINESS ADMINISTRATION.

BFI 4301; FINANCIAL MANAGEMENT.

END OF SEMESTER EXAMINATIONS

SERIES; MAY 2016

TIME;   2 HOURS

Instructions;

Answer question one and any other two questions.

QUESTION ONE.

(a) Highlight the various measures that would minimize agency problems between the owner and the management. (6 marks)

(b) A firm purchased a machine at 1,200,000.the rate of interest is fixed at 24% p.a and is required to deposit 40% of the value and pay the rest in 12 equal monthly installments.
Required:
Prepare a payment schedule for the firm.　　　(7 marks)

© Describe five qualities of a good investment evaluation criteria　　　(5 marks)

The following cash flows relate to two projects being considered for investment by Viwandani Co.Ltd

Year	Project K1	Project K2
1	750000	1950000
2	2000000	2480000
3	2150000	3300000
4	3300000	2000000
5	2800000	1900000

The initial investment is 6,200,000 and 7,000,000 respectively. The firms cost of capital is 12 %

Required:

I.　Compute the firms IRR　　　　　　　　　　　　(10 marks)
II.　Advice the management of the firm on the viability of the project.　　　(2 marks)

Question Two

The shareholders' equity of LINU co. Ltd included the following items;

Equity structure	kshs.(in millions).
Ordinary shares	100
Premium on ord. Shares	980
8% preference shares	200
Premium on preference shares	555.

The board of directors declared cash dividends of sh. 8 millions, 20 million and 150 million for the first threes of operations respectively.

Required;

Determine the amount of dividends paid to both preference and ordinary shareholders' in each year

(10 marks)

(b)(i) Ordinary shares is a major source of capital to established firms despite the

Uncertainties attached to them. Briefly explain why they are popular.

(5 marks).

(ii) WACC is always used as the discounting factor when evaluating business projects.

Briefly explain the weaknesses of using WACC as the discounting factor.

(5 marks)

QUESTION THREE

(a) From the following information, ascertain which project should be selected on the basis of standard deviation.

	Project X		Project Y	
	Cash inflow	Probability	Cash inflow	Probability
Period	sh.		sh.	
1	3,200	0.2	32,000	0.1
2	5,500	0.3	5,500	0.4
3	7,400	0.3	7,400	0.4
4	8,900	0.2	8,900	0.1

(b) Briefly explain any five factors which may influence capital structure decisions.
(10 marks)

QUESTION FOUR

(a) (i) Briefly explain any 4 dividend theories, justifying the existence of the theory.

(10 marks)

(ii) A company's net profit after tax is 6 million and the Company has a dividend
payout policy of 60%. It has a share capital of 7.2 million at a nominal value of
sh.10. The shares have appreciated by 20%.
Required:

(i)   Dividends yield   (5 marks)
(ii)   Earnings per share   (5 marks)

QUESTION FIVE.

(a) ABC Ltd. needs sh. 3,000,000 for the installation of a new factory. The new factory expects to yield annual earnings before interest and tax (EBIT) of sh.500,000. In choosing a financial plan, ABC Ltd., has an objective of maximizing earnings per share (EPS). The company proposes to issue ordinary shares and raising debit of sh. 300,000 and sh.1, 000,000 of sh. 1,500,000. The current market price per share is sh. 25 and the number of shares on issue are 200,000. The tax rate is 30%. Funds can be raised at the following rates.

–up to sh. 300,000 at 8%
–over sh. 300,000 to sh 1,500,000 at 10%
–over sh. 1,500,000 at 15%
Assuming a tax rate of 50%

Required:
Advise the company on which financing structure to use. (10 marks)

(b) ABC Company Ltd books:

	Sh.
10.000, Sh.20 ordinary share capital	200,000
10,000, Shs.10 8% preference share capital	100,000
5,000, Shs.100 12% debentures	500,000

The above debentures are due for conversion:

Additional information;

(i) The company has been paying dividends at the rate of 15% with a growth of 10%, and this is expected to continue**.**

(ii) The shares are currently trading at the stock market at sh. sh. 30 per share.

(iii) The preference shares are currently trading at sh. 9 each.

(iv) Debentures are trading at per.

(v) The corporate tax is 30%

Required

i) Compute the market weighted cost of capital.

(5 marks)

ii) Briefly explain any five reasons why leases may be preferred to outright purchase.

(5 marks)

MARKING SCHEME.

(a) Measures that would minimize agency problem
- Share options link managerial remuneration to firms' performance.

- Reduction of free cash flow through, dividend payouts, share repurchases and incurring extra debt serve to reduce the amount of money under mangers' control.

- Threat of mergers and liquidation.

- Threat of firing.

- Increasing financial leverage is therefore one of the possible ways of reducing the agency costs associated with equity.

- Decisions concerning dividend payouts and share repurchases. Such actions negatively affect the market value of bonds, but have a positive impact on a company's shares

(c) LOAN REPAYMENT SCHEDULE.

period	instalment	nt	loan repayment	BALANCE
				720,000
1	68,085	14400	53,685	666,315
2	68,085	13326.3	54,759	611,556
3	68,085	12231.13	55,854	555,702
4	68,085	11114.05	56,971	498,731
5	68,085	9974.629	58,110	440,621
6	68,085	8812.422	59,273	381,349
7	68,085	7626.971	60,458	320,890
8	68,085	6417.81	61,667	259,223
9	68,085	5184.466	62,901	196,323
10	68,085	3926.455	64,159	132,164
11	68,085	2643.285	65,442	66,723
12	68,085	1334.45	66,751	-28

© Qualities of a good investment criteria

- It must state when to accept and reject
- It must rank viable projects
- It should take into account time value for money
- It must take into account of possible risk,

CALCULATION OF IRR.

Year   Project K1

750,000   x 0.893 = 669,750

2	2000,000 x 0.797 = 1,594,000
3	2150,000 x0.712 = 1,530,800
4	3300,000 x 0.636 = 2,098,800
5	2800,000 x 0.567 = 1,587,600

Year	Project K2
1	1950,000 x 0.893 = 1,741,350
2	2480,000 x 0.797 = 1,976,560
3	3300,000 x 0.712 = 2,349,600
4	2000,000 x 0.636 = 1,272,000
5	1900,000 x 0.567 = 1,077,300

Question Two

Amount of dividends

Dividends payments.

	Amount declared Sh.000	Preference dividends Sh.000	Ordinary dividends Sh.000
Year 1	8,000	200,000 x 0.08 = 16,000	NIL
Year 2	20,000	20,000 X 0.08 =16,000 + 8,000 = 24,000	NIL
Year 3	150,000	20,000 x 0.08 = 16,000 + 4,000 = 20,000	130,000

Reasons why ordinary share capital is attractive despite being risky

- Shares are used as securities for loans (a compromise of the market price of a share).
- Its value grows.
- They are transferable at capital gain.
- They influence the company's decisions.
- Carry variable returns – is good under high profit
- Perpetual investment – thus a perpetual return
- Such shares are used as guarantees for credibility.

Weaknesses of WACC as a discounting rate

WACC/Overall cost of capital has the following problems as a discounting rate:

- It can only be used as a discounting rate assuming that the risk of the project is equal to the business risk of the firm. If the project has higher risk then a percentage premium will be added to WACC to determine the appropriate discounting rate.
- It assumes that capital structure is optimal which is not achievable in real world.
- It is based on market values of capital which keep on changing thus WACC will change over time but is assumed to remain constant throughout the economic life of the project.
- It is based on past information especially when determining the cost of each component e.g in determining the cost of equity (Ke) the past year's DPS is used while the growth rate is estimated from the past stream of dividends.

QUESTION THREE

Project X

Cash inflow	Deviation	Squared deviation	Probability	Weighted Deviation. (Td^2)
1	2	3	4	5
3,200	-6,250	930,250,00	0.2	1,860,500
5,500	-750	562,500	0,3	168,750
7,400	1,150	1,322,500	0.3	396,750
8,900	2,650	7,022,500	0.2	1,404,500

n= 1   Σfd2 = 3,830,500

Standard Deviation (6) = $\sqrt{\Sigma fd2/n}$ = 3,830,500/1 = 1957.2

Project Y

Cash inflow	Deviation	Squared deviation	Probability	Weighted Deviation. (Td^2)
1	2	3	4	5
3,200	-3,050	930,250,00	0.1	930,250
5,500	-750	562,500	0,4	22,500
7,400	1,150	1,322,500	0.4	529,000
8,900	2,650	7,022,500	0.1	702,250

n= 1   Σfd2 = 3,830,500

Standard deviation (6) = Σfd2/n = 2,386,500/1 = 1,544.8
As the standard deviation of project X is more than that of project Y, A is more risky.**Solution**

4 . **i**) Dividend Irrelevance Theory.

(ii) Dividends relevance; Gordon's model: - Assumptions of this theory are;

   (a) Bird-in-the-Hand Theory

   (b) Tax-Preference Theory

   (**c**) Dividend Signaling Theory

(d) Catering Theory of Dividends.
Good explanation is required.

(iii) Dividend paid out 60% of 6,000,000 = 3,600,000.
Share Capital (nominal value of shares) = 7,200,000 x 10 = 72,000,000
Dividend rate   = Dividend paid / nominal value of shares
=   3,600,000/72,000,000 = 0.05   =   5%.

Dividend   yield =   dividend paid / market value of shares.
Market value = nominal value x the growth rate
Growth rate = 10 x 0.25 = 2.5/=
Market value is therefore   10 +2.5   = 12.5   x 7,200,000 = 90

5. (a)

Earnings Before Interest and Tax (BIT) less Interest Earnings Before Tax less: Tax@50%.

Alternatives	I	II	III
	(sh. 300,000 debt)	(sh. 1,000,000 debt)	(sh. 1,500,000 debt)
	500,000	500,000	500,000
	24,000	100,000	225,000
	476,000	400,000	275,000
	238,000	200,000	137,500
	238,000	200,000	137,500
	2,700,000	2,000,000	1,500,000
	250	250	200
	10,800	8,000	7,500
	238,000	200,000	137,500
No. of shares	10,800	8,000	7,500
Earnings per share	22.03	25	18.33

The secure alternative which gives the highest earnings per share is the best. Therefore the company is advised to revise sh. 10,00,000 through debt amount sh. 20,00,000 through ordinary shares

(b) i)   weighted cost of capital.

	Book value	Market value.	Cost	Weighted Cost
Ordinary shares	200,000	300,00	21	7.08
Preference shares	100,000	90,000	8,8	0.89
Debentures	500,000	500,000	8.4	4.49
				12.46

Advantage of Leasing an Asset

- It does not tie up the company's funds in an asset.

- The arrangement may ensure lessor bears the maintenance costs reducing the companies operating costs.
- The company has the option to purchase assets at the expiry of the lease period at which time it will know the viability of the asset.
- The company (lessee) will enjoy the lease charges as allowable expenses thus reducing taxable income and tax liability.
- Lease finance enables the lessee to use the asset to create financial surpluses which may then be used to buy assets.
- It is usually a long-term arrangement which enables the company to plan returns expected and operations which may be carried out.

Any five with an explanation.