

# KASNEB

## CPA PART III SECTION 5

### ADVANCED FINANCIAL MANAGEMENT

THURSDAY: 25 May 2017.

Time Allowed: 3 hours.

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

#### QUESTION ONE

- (a) Explain two ways in which increased investment in corporate social responsibility (CSR) activities might enhance the value of a firm. (4 marks)
- (b) Kenzel Ltd. has the following capital structure which it considers optimal under both the present and forecasted conditions:

Source of capital	%
Long-term debt	45
Equity capital	55
<b>Total</b>	<b>100</b>

The management of Kenzel Ltd. forecasts the after-tax earnings for the forthcoming year at Sh.2.5 million. The company has been paying 60 per cent of its earnings as dividend and this payment ratio is expected to continue into the foreseeable future. The company's present loan commitment will allow it to incur additional leverage according to the schedule presented below:

Loan amount (Sh.)	Interest rate on incremental debt
0 - 500,000	9%
500,000 - 900,000	11%
900,000 and above	13%

The company's corporate tax rate is 30%. The current market price of the equity shares of the company is Sh.22. The last dividend on equity shares was paid at Sh.2.20 per share and the expected growth rate is 5%. New equity shares can be sold at a floatation cost of 10% of the issue price.

Kenzel Ltd. has the following investment opportunities for the coming year:

Project	Cash outlay Sh.	Annual net cash flow Sh.	Project life (years)	Internal rate of return %
A	675,000	155,401	8	?
B	900,000	268,484	5	15
C	375,000	161,524	3	?
D	562,500	185,194	4	12
E	750,000	127,351	10	11

#### Required:

- (i) The amounts in shillings at which breaks in the marginal cost of capital (MCC) schedule occur. (3 marks)
- (ii) The weighted marginal cost of capital (WMCC) in each of the intervals between the breaks in the MCC schedule. (6 marks)
- (iii) The internal rate of return (IRR) for project A and project C. (4 marks)
- (iv) Using the investment opportunities schedule (IOS), advise on which project(s) should be accepted. (3 marks)
- (Total: 20 marks)**

## QUESTION TWO

- (a) Analyse three factors that might be responsible for financial distress in a firm. (6 marks)
- (b) The following information relates to the performance of six portfolios over a seven-year period:

Portfolio	Average annual returns (%)	Standard deviation of the average annual returns (%)	Correlation with market returns
P	18.6	27.0	0.81
Q	14.8	18.0	0.65
R	15.1	8.0	0.98
S	22.0	21.2	0.75
T	-9.0	4.0	0.45
U	26.5	19.3	0.63
Market return	12.0	12.0	
Risk-free rate	9.0		

### Required:

Rank the performance of the above portfolios using:

- (i) Sharpe's method. (4 marks)
- (ii) Treynor's method. (6 marks)
- (c) Compare the rankings using the two methods in (b) above and explain two reasons behind the differences. (4 marks)
- (Total: 20 marks)**

## QUESTION THREE

- (a) Examine four strategies that a company could adopt to defend itself against a hostile takeover. (8 marks)
- (b) The following data relate to two companies namely; V Ltd. and J Ltd. operating in the same line of business.

### Financial data as at 30 April 2017:

	V Ltd.	J Ltd.
Market value of debt (Sh."billion")	6.60	11.60
Market value of equity (Sh."billion")	19.80	13.40
Number of shares in issue ("million")	680.00	880.00
Share options outstanding ("million")	50.80	-
Exercise price per option (Sh. per share)	22.00	-
Corporate tax rate	30%	30%
Equity beta	1.85	0.95
Default risk premium	1.6%	3.0%
Net operating profit after tax and net re-investment (Sh."million")	900.00	410.00
Current earnings per share (Sh. per share)	1.19	0.44

### Additional information:

- The global equity risk premium is 4% and the most appropriate risk-free rate derived from government securities is 3%.
- The share options held by the employees were exercisable subject to the employees working for the company for the next three years.
- The company has an annual employee attrition rate of 5% as employees leave and out of those remaining, 20% are expected not to have achieved the standard of performance required to exercise the options.
- The options have a time value of Sh.7.31.
- J Ltd. operates a defined benefit pension scheme which, at its current actuarial valuation, shows a deficit of Sh.860 million.
- V. Ltd. which has managed to sustain a 5% growth rate in earnings per annum, is considering a debt-financed acquisition of J Ltd. In addition, V Ltd. believes that J Ltd. could register a growth rate of 4% per annum under its current management.

### Required:

- (i) The weighted average cost of capital (WACC) of both J Ltd. and V Ltd. (4 marks)
- (ii) The current value of both J Ltd. and V Ltd. (8 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Explain three functions of the African Development Bank. (6 marks)
- (b) Biashara Ltd. is an import-export company based in Kenya. On 1 January 2017, the company exported coffee worth US \$140,000 to the United States (US) of America on a five-month credit.

**Additional information:**

1. The exchange rates in the forex markets were (are expected to be) as follows:

	KSh/1 US\$
1 January 2017	100
31 May 2017	102

2. The lending and borrowing rates in the two countries are as follows:

	Annual lending rate	Annual borrowing rate
Kenya	18%	19%
USA	14%	15%

3. The importer will settle the outstanding amount on 31 May 2017.

**Required:**

- (i) Using the interest rate parity relationship, compute the expected 5-month forward exchange rate as at 31 May 2017. (4 marks)
- (ii) Advise Biashara Ltd. on which is the better hedging strategy between a forward contract and a money market hedge. (10 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) A Ltd. is considering acquiring B Ltd. The selected financial data for the two companies are as follows:

	A Ltd.	B Ltd.
Annual sales (Sh."million")	600	120
Net income (Sh."million")	35	3
Ordinary shares outstanding ("millions")	10	2
Earnings per share (EPS) - Sh.	3.5	1.5
Market price per share (MPS) - Sh.	40	15

Both companies are in the 30% tax bracket.

**Required:**

- (i) The maximum exchange ratio that A Ltd. should agree to if it expects no dilution in earnings per share. (2 marks)
- (ii) Total premium that the shareholders of B Ltd. would receive at the exchange ratio calculated in (a) (i) above. (2 marks)
- (iii) A Ltd.'s post acquisition earnings per share, if the two companies settle on a price of Sh.20 per share. (2 marks)
- (iv) A Ltd.'s post-acquisition earnings per share if every 50 ordinary shares of B Ltd. were exchanged for one 8% debenture of a par value of Sh.1,000 each. (2 marks)
- (b) Chuma Ltd. operates a machine which has the following maintenance costs and resale values over its four-year life. The purchase price of the machine is Sh.25,000,000.

	Year 1 Sh."000"	Year 2 Sh."000"	Year 3 Sh."000"	Year 4 Sh."000"
Maintenance costs	7,500	11,000	12,500	15,000
Resale value (end of year)	15,000	10,000	7,500	2,500

The company's cost of capital is 10%.

**Required:**

- Advise the management of Chuma Ltd. on how frequently the machine should be replaced. (12 marks)
- (Total: 20 marks)**

