

Shaky

$\frac{21}{40} \times 15 = 7.875$
 $\frac{15}{20} \times 15 = 11.25$



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MAIN EXAMINATION

AUGUST - DECEMBER 2012 TRIMESTER

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING AND FINANCE

REGULAR/EVENING PROGRAMME

CFI 311: CORPORATE FINANCE

Handwritten notes: $\frac{21}{40} \times 15 = 7.875$, $\frac{15}{20} \times 15 = 11.25$

Date: December 2012

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

Q1. a) DET Ltd is financed by 100% Equity at a cost of equity of 18%. CAD Ltd is very similar to DET Ltd in terms of operations. However, CAD Ltd is financed by Sh. 20m debt at an annual interest of 9%, and 7 million ordinary shares whose market price is Sh. 20 each.

Required:

Using MM II without taxes:

$k_e = k_c + (k_c - k_d) \frac{D}{E}$
 $k_e = (E \times k_e) + (D \times k_d)$

- i) Calculate the cost of equity of CAD Ltd. (5 marks)
- ii) Calculate the overall cost of capital of CAD LTD. (4 marks)
- iii) Explain how much risk of DET Ltd is attributed to business Risk and how much to financial risk. (3 marks)

b) WETT Ltd is considering a project whose initial outlay is Sh. 1m, and would generate cash inflows of Sh. 300,000, Sh. 350,000, Sh. 500,000 and Sh. 400,000 in years one to four respectively. However, the company is not 100% certain that these projected cash flows will be generated. The firm's risk free discount rate is 12% while the risk adjusted discount rate is 16%.

- i) Using the appropriate discount rate should the project be accepted? (6 marks)
 - ii) What is the risk premium associated with this project? (2 marks)
 - iii) Why is it generally incorrect to consider interest charges when computing a project's cash flows? (2 marks)
- c) Explain the following with an example:
- i) Money markets (2 marks)
 - ii) Private placement of corporate bonds. (2 marks)
 - iii) Agency problem (2 marks)
 - iv) Stock dividend (2 marks)

Q2. A company has shares traded in the local stock exchange, currently selling at Sh. 75 each. The company wants to raise Sh. 500 million through an issue of additional shares. The investment bank advising the company has indicated that due to the declining trend in the stock market, the new shares would be underpriced by 8% compared to the current share price.

The investment bank will earn an underwriting spread of 7% of the issue price.

The lead investment bank will invite other banks to form a syndicate so as to minimize risk.

Required:

- a) Distinguish between underwriting spread and under pricing. (4 marks)
- b) Calculate the price at which the new shares will be sold to the public. (3 marks)
- c)
 - i) What net price will the issuing company receive per share. (4 marks)
 - ii) To raise the needed Sh. 500m, how many shares must the issuing company sell? (3 marks)
- d)
 - i) Calculate the absolute spread per share. (3 marks)
 - ii) Calculate the total amount that the investment banking syndicate will earn on sale. (3 marks)

- *Q3. a) Giving an example of each, clearly explain the difference between a vertical and horizontal merger. (4 marks)
- b) Company A is considering the acquisition of company B and merge the operations of the two firms. Company B is a key player in the manufacturing industry with two production lines:
- 1) Radio line which produces car radios
 - 2) Television line producing TV sets for vehicles in the public transport sector.

Company A is in the car assembling industry and it is very much interested in firm B's Radio production line. Other information regarding the two companies is as follows:

	Firm A	Firm B
Cost of capital	10%	15%
No. of shares outstanding	10m	2.5m
After tax cash inflows p.a.	Sh. 50m	Sh. 30m

The estimated synergies from the deal will be generated by company B only. The synergies have currently been valued at Sh. 15 million. The cash flows above will be generated forever.

Required:

- i) Calculate the stand alone value per share for each company. (6 marks)
- ii) Calculate the exchange ratio without considering synergies. (1½ marks)
- iii) Calculate the exchange ratio considering synergies. (4½ marks)
- iv) What is the minimum price per share should company B be willing to receive and why? (2 marks)
- *v) If the above deal was a hostile acquisition, how would firm B use crown Jewell as a defensive mechanism? (2 marks)

- *Q4. A company wants to replace a manual production process with a machine. The manual process requires three unskilled workers and a supervisor. Each worker makes Sh. 175,000 p.a. while the supervisor earns Sh. 245,000 annually. The new machine can be run with only one skilled operator who will earn Sh. 400,000

per year, as wages. Other personnel costs relating to the new machine are 10% of total annual wages. A service contract will cover all variable maintenance costs for the new machine amounting to Sh. 10,000, Sh. 30,000, Sh. 40,000 and Sh. 30,000 in years 1 to 4 respectively. *Fixed Cost*

The new machine will be bought at Sh. 1,220,000 while a further Sh. 80,000 will be spent on the machine's installation. The machine will have a salvage value of Sh. 20,000 at the end of its 4 year life. The firm depreciates its assets on a straight line basis. The marginal corporate tax rate is 30% while the cost of capital of 10%. The company engaged external to experts to do a feasibility study on the New Machine, for which they were paid a fee of Sh. 30,000.

Required:

- a) Calculate the initial investment outlay. (3 marks)
- b) Calculate the operating cash flows per year. (8 marks)
- c) Calculate the total cash flows per year. (3 marks)
- d) Using NPV, should the New Machine be bought? (3 marks)
- e) How should the following be treated when estimating project cash flows:
 - i) Opportunity cost — *Added* (1½ marks)
 - ii) Net working capital at the end of the project's life. *minus* (1½ marks)

Formulae

Present value interest factors:

1) For an Annuity = $\frac{1 - (1+r)^{-n}}{r}$

2) For a Single Amount = $(1+r)^{-n}$

END