# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**MAIN EXAMINATION**

**MAY – JULY 2019 TRIMESTER**

**FACULTY OF COMMERCE**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

**SPECIAL / SUPPLEMENTARY EXAMINATION**

**CFI 311: CORPORATE FINANCE**

| Date: JULY 2019 | Duration: 2 Hours |
|---|---|
| INSTRUCTIONS: Answer Question ONE and any other TWO Questions | |

1. a) WETT Ltd has 5 m shares outstanding. The firm expects to make sh. 40m as net profits next year.The firm has a dividend payout ratio of 20%. **Required**

i) How much will it add to its retained earnings next year. **4 marks**

ii) How much is the expected dividend per share **4 marks**

b) TBL Ltd is leveraged with debt currently valued at 80% of its book value. The firm's debt has a book value of sh. 500m. The company's shares are currently selling at sh. 30 each at the stock exchange. The firm pays a before tax interest rate of 10% p.a. on debt.

Its equity investors require a return of 17%. The firm is in the 30% tax bracket. Calculate firm's overall cost of capital. **6 marks**

c) A firm is considering two mutually exclusive projects. Project X, with a initial cost of sh. 25,000 and cash inflows of sh. 10,000 per year for 6 years. Project Y with an initial cost of sh. 19,000 and cash inflows of sh7,000, sh.9,000 and sh.12,000 in years 1 to 3 respectively. The firm's cost of capital is 10% and it uses the equivalent annual annuity method when evaluating projects with unequal lives. Required: which project should be undertaken?

**10marks**

d) Explain the meaning of the following terms with an example in each case:

i) Primary markets **2 marks**

ii) Public offering of corporate bonds **2 marks**

**2**. Firm X produces shoes in the local market. It wants to acquire firm Y which produces shoes accessories. The shareholders of X have approached those of firm Y for a possible acquistion and subseqeuntly merge the two firms. Selected financial data for the two firms is as follows:

| | **Firm X** | **Firm Y** |
|---|---|---|
| No. of shares outstanding | 5 m | 20m |
| Market price per share | sh. 6 | sh. 10 |
| Cost of capital | 15% | 16% |

The estimated synergies from the deal are currrently valued at sh 18m. The shareholders of firm X have agreed to pay a price of sh. 7.50 per share, payable through cash or new shares of Firm X. **Required**

**a)** If payment is by cash claculate:
- **i)** The acquisition premium per share **2 marks**
- **ii)** The NPV to shareholders of Firm X **6 marks**

**b)** If payment is by shares:
- **i)** How many shares will Firm X need to issue? **2 marks**
- **ii)** Calculate the NPV to shareholders of Firm X **6 marks**

**c)** Distinhuish between a conglomerate and horizontal merger. **4 marks**

**3**. A firm wants to buy a new machine to replace an exisiting one. The old machine has a book value of sh. 600,000 today and a remaining life of 4 years. The salvage value of the old machine is zero at the end of its economic life. However, the old machine can be sold at sh. 350,000 today. Additional information is given as follows:

i) The ned machine can be bought at sh 1,180,000 today and it will have a salvage value of sh. 150,000 at the end of its 4-year life. Set up costs related to this machine amount to sh.170,000.

ii) The firm uses straight line depreciation method

iii)The firm's cost of capital is 10%

iv)The new machine's greater efficiency wil make sales revenue increase by sh. 150,000 per year while operating costs will reduce by sh. 250,000 per year.

v. Insurance costs relating to the new machine will be sh. 100,000, sh 200,000, sh. 260,000 and sh. 200,000 in years 1 to 4 respectively.

vi. Initial net working capital (NWC) needed for the new machine is sh. 50,000. Thereafter NWC needs will be sh.60,000, sh. 65,000, sh. 69,000 and sh. 63,000 in years 1 to 4 respectively.

vii. The corporate tax rate is 30% while capital gains or losses are charged at 25%

**Required**:

- **a)** Calculate the initial invetsment outlay for this project **5 marks**
- **b)** Calculate the relevant annual operating cash flows for this project **7 marks**
- **c)** Calculate the total cash flows per year for thsi project **5 marks**
- **d)** Shouel the new machine be bought? **3marks**

**4.** The shares of TLC ltd are currently trading at sh 80 in the stock market. TLC wants to raise sh 700m by selling new shares. CBA Capital has advised that due to the declining trend in the market, the new shares will be underpriced by 10% compared to the current share price. CBA Capital will invite other banks to form an underwriting syndicate to minimize risk. The banks will earn an underwriting spread of 5% of the issue price as they are engaged on a firm committment basis. Required:

a) Distinguish betwee underpricing and underwriting spread **4 marks**

b) calculate the price at which the new shares will be sold to the investing public.**3 marks**

c) i. What net price will the issuing TLC receive per share? **3 marks**

ii.To raise sh. 700m, how many new shares must TLC sell? **3 marks**

d)Calculate the absolute spread per share **3 marks**

e) Calculate the total amount that the underiting syndicate will earn on sale **4 marks**

**Present value interest factors**

**1) Present value interest factor for an annuity =** $\dfrac{1-(1+r)^{-n}}{r}$

**2) Present value factor for a single amount =** $(1+r)^{-n}$

***END***