CPA PART III SECTION 5
ADVANCED FINANCIAL MANAGEMENT

THURSDAY: 30 November 2017.

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

QUESTION ONE
(a) Discuss how corporate governance might impact the dividend policy of a firm. (6 marks)

(b) Viwanda Ltd. is considering purchasing a machine at a cost of Sh.40 million. The company will incur an additional Sh.20 million to modify the machine for special use.

The machine is expected to have a useful life of 3 years and a scrap value of Sh.15 million after 3 years.

This investment will require an increase in net working capital of Sh.2 million at the beginning of its useful life.

The additional investment in working capital will return to normal at the end of the machine's useful life.

The machine's purchase will not affect revenues but it is expected to save the company Sh.25 million each year in before tax operating costs, mainly labour.

The corporation tax rate is 30% and the company's cost of capital is 10%.

Required:
(i) Advise Viwanda Ltd. on whether to buy the machine. (6 marks)

(ii) Suppose the firm's management is unsure about the savings in before tax operating costs. Carry out a sensitivity analysis on this variable assuming that the variable shall vary adversely by 10%. (8 marks)

(Total: 20 marks)

QUESTION TWO
(a) Discuss three reasons why economic value added (EVA) is gaining prominence as an alternative measure of a company's financial performance. (6 marks)

(b) With reference to financial management in the global context, distinguish between the following terms:

(i) A "Eurobond" and a "Euro note". (2 marks)

(ii) An option being "in the money" and "out of the money". (2 marks)

(c) Wekeza Investments has initiated an investment fund called "Faidika" the funds of which will be invested only in stocks and bonds of infrastructure and construction companies.

60% of the fund value is invested in companies engaged in commercial construction services and the other 40% in companies engaged in developing residential properties. The average beta of returns from development of residential properties is 1.9 and that of commercial construction services is 1.4.

The benchmark market return is 11.2% while Treasury bonds carry an interest rate of 4.25%.
The following information on the net asset values (NAV) per share is provided:

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing NAV</td>
<td>18.60</td>
<td>17.80</td>
<td>18.20</td>
<td>18.00</td>
<td>17.80</td>
<td>16.80</td>
</tr>
<tr>
<td>&quot;Sh&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividend</td>
<td>-</td>
<td>0.75</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.20</td>
</tr>
<tr>
<td>payout &quot;Sh&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The opening NAV for January is Sh.17.75.

Required:
Calculate Jensen’s alpha relating to “Faidika” and use it to evaluate the fund’s performance.

(Total: 20 marks)

QUESTION THREE
(a) Discuss three reasons why acquisitions often fail to enhance shareholder value.

(b) Mkuki Ltd. is considering making a bid for 100% of the shares of Ngao Ltd., a company in a completely different industry. The bid of Sh.200 million, which is expected to be accepted, will be financed entirely by new debt with a post-tax cost of debt of 7%.

1. Pre-acquisition information:

Mkuki Ltd.

The company has debt finance totalling Sh.60 million at a pre-tax rate of 10%.

The company has 50 million equity shares each with a current market value of Sh.22. The equity beta is 1.37.

The post-tax operating cash flows of Mkuki Ltd. are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh“million”</td>
<td>60.3</td>
<td>63.9</td>
<td>67.8</td>
<td>71.8</td>
<td>76.1</td>
</tr>
</tbody>
</table>

Ngao Ltd.

The company has an equity beta of 2.5 and 65 million equity shares in issue with a total current market value of Sh.156 million.

The company’s debt, which will also be taken over by Mkuki Ltd., stands at Sh.12.5 million at a post-tax rate of 7%.

2. Post-acquisition information:

Land with a value of Sh.14 million will be sold.
The post-tax operating cash flows of Ngao Ltd's current business will be:

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh&quot;million&quot;</td>
<td>15.2</td>
<td>15.8</td>
<td>16.4</td>
<td>17.1</td>
<td>17.8</td>
</tr>
</tbody>
</table>

3. If the acquisition goes ahead, Mkuki Ltd. will experience an improvement in its credit rating and all existing debts will be charged at a post-tax rate of 7%.
4. Cash flows after year 5 will grow at the rate of 1.5% per annum.
5. The risk-free rate is 5.2% and the market risk premium is 3%.
6. The corporate tax rate is 30%.

Required:
Advise whether the acquisition should proceed. (14 marks)

(Total: 20 marks)

QUESTION FOUR
(a) Two CPA graduates have formed a company to write, market and distribute text books and revision manuals. The company's text books and revision manuals have already been piloted and the market prospects are good. All that is lacking is adequate financing to continue the project. A small group of private investors is interested in financing the new company. Two financing proposals are being evaluated.

1. Financing option one:
   This is an all equity capital structure. Three million shillings would be raised by selling ordinary shares at Sh.40 per share.

2. Financing option two:
   This will involve the use of financial leverage.

   One million shillings would be raised by selling corporate bonds with an effective interest rate of 14 per cent per annum. The remaining Sh. 2 million would be raised by selling ordinary shares at Sh.40 per share. The use of financial leverage is considered to be a permanent part of the firm's capital so no fixed maturity date is needed for the analysis.

3. The corporation tax rate appropriate for this analysis is 30%.

Required:
(i) Find the operating profit (EBIT) indifference level associated with the two financing plans. (4 marks)
(ii) Construct an EPS-EBIT graph for the two financing plans. (4 marks)
(iii) Determine the range of operating profit (EBIT) within which each financing plan above would be recommended. (2 marks)

(b) The following data relate to two companies; Alpha Ltd. and Beta Ltd. which belong to the same risk class.

<table>
<thead>
<tr>
<th>Number of ordinary shares outstanding</th>
<th>Alpha Ltd.</th>
<th>Beta Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90,000,000</td>
<td>150,000,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market price per share</th>
<th>Alpha Ltd.</th>
<th>Beta Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh.18</td>
<td></td>
<td>Sh.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6% debentures (market value)</th>
<th>Alpha Ltd.</th>
<th>Beta Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh.60,000,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profit before interest and tax</th>
<th>Alpha Ltd.</th>
<th>Beta Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh.18,000,000</td>
<td></td>
<td>Sh.18,000,000</td>
</tr>
</tbody>
</table>

All profits after debenture interest are distributed as dividends.

Required:
(i) Using suitable calculations, demonstrate how under the Modigliani and Miller approach (without taxes), an investor holding 10 per cent of Alpha Ltd's shares will be better off in switching his holding to Beta Ltd. (8 marks)

(ii) Explain when, according to Modigliani and Miller (without taxes), the process described in (b) (i) above would come to an end. (2 marks)

(Total: 20 marks)
QUESTION FIVE
(a) In relation to financial management in a global context, explain how the following theories could be used to forecast exchange rates:

(i) Interest rate parity. (4 marks)
(ii) Purchasing power parity. (4 marks)

(b) Jacques Ltd. is a company based in France where the Euro (€) is widely used. The company has recently imported raw materials from the USA and has been invoiced for US Dollars ($) 240,000 payable in 3 months’ time.

In addition, the company has exported finished goods to the USA and Australia. The customer in the USA has been invoiced for US Dollars ($) 69,000 payable in 3 months’ time and the Australian customer has been invoiced for Australian dollars (ASD) 395,000 payable in 4 months’ time.

The current spot and forward exchange rates are given as follows:

US Dollars ($) / 1 Euro (€)
Spot rate 0.9830 – 0.9850
3 months’ forward 0.9520 – 0.9525

Euro (€) / 1 ASD
Spot rate 1.8890 – 1.8920
4 months’ forward 1.9510 – 1.9540

The current money market interest rates per annum are given as follows:

<table>
<thead>
<tr>
<th></th>
<th>Lending</th>
<th>Borrowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Australia</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>France</td>
<td>11.5%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Required:
Show how the company can hedge its foreign exchange exposure using:

(i) Forward market cover. (6 marks)
(ii) Money market cover. (6 marks)
(Total: 20 marks)