KASNEB
ATD LEVEL II
FUNDAMENTALS OF FINANCE

TUESDAY: 24 May 2016. 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) Outline four advantages that could accrue to a firm from using debt capital over equity capital as a mode of financing. (4 marks)

(b) Describe three factors that should be considered while evaluating an investment in securities. (6 marks)

(c) The management of Furaha Ltd. is evaluating five investment projects whose expected cash flows are shown below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
<th>January 2016</th>
<th>December 2016</th>
<th>December 2017</th>
<th>December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sh. “000”</td>
<td>Sh. “000”</td>
<td>Sh. “000”</td>
<td>Sh. “000”</td>
</tr>
<tr>
<td>A</td>
<td>(120,000)</td>
<td>60,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>B</td>
<td>(60,000 )</td>
<td>(40,000)</td>
<td>50,000</td>
<td>90,000</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>(80,000 )</td>
<td>(100,000)</td>
<td>120,000</td>
<td>140,000</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>(160,000)</td>
<td>90,000</td>
<td>110,000</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>(100,000)</td>
<td>20,000</td>
<td>60,000</td>
<td>80,000</td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
1. Ignore tax and depreciation.
2. The required rate of return on investment is 16%.

Required:
Using the net present value (NPV) approach, determine the project(s) that should be undertaken, assuming that capital would be available when required. (3 marks)
(Total: 10 marks)

QUESTION TWO
(a) Highlight four types of alternative investment vehicles available in the financial markets. (4 marks)

(b) Discuss four goals of a firm in your country. (8 marks)

(c) Delight Ltd.’s capital structure as at 31 December 2014 was as follows:

<table>
<thead>
<tr>
<th>Sh. “000”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares at Sh.0.50 par value</td>
</tr>
<tr>
<td>Reserves</td>
</tr>
<tr>
<td>9% Preference shares at Sh.1.00 par value</td>
</tr>
<tr>
<td>14% Debentures</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Additional information:
1. The ordinary shares are quoted at Sh.0.80.
2. The next ordinary dividend is estimated at Sh.0.04 growing thereafter at 12% in perpetuity.
3. The preference shares are quoted at Sh.0.72 while debentures are quoted at par.
4. Corporate tax rate is 30%.

Required:
Weighted average cost of capital using the book value. (8 marks)
(Total: 20 marks)

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QUESTION THREE
(a) Summarise five advantages of preference share capital to shareholders. (5 marks)
(b) With reference to time value of money, explain the following terms:
(i) Present value. (2 marks)
(ii) Future value. (2 marks)
(iii) Loan amortisation. (2 marks)
(c) Ivy Ltd. uses 2,000 units of stock item K each year. The cost of holding a single item for a year is Sh. 2.00 and the cost of placing an order is Sh. 45. The company is considering to double its ordering batches from 200 units to 400 units.
Required:
(i) Economic order quantity (EOQ). (3 marks)
(ii) Number of orders every year. (2 marks)
(iii) Number of days before an order is placed. (Assuming a 365 day - year). (2 marks)
(iv) Advise the management whether the decision to double its ordering batches should be undertaken. (2 marks)
(Total: 20 marks)

QUESTION FOUR
(a) In relation to Islamic finance, explain the following concepts:
(i) Riba. (2 marks)
(ii) Mudharaba. (2 marks)
(b) Summarise five reasons why financial markets in developing countries have experienced slow growth. (5 marks)
(c) In an investment seminar, one of the facilitators noted that “there are three categories of investors; that is, risk-averse investors, risk-neutral investors and risk-taker investors”.
With reference to the above statement, explain each of the three categories of investors. (3 marks)
(d) (i) Billy Rich intends to deposit Sh. 2,400,000 in a bank paying an annual interest rate of 6% compounded quarterly. Determine his bank balance and the amount of interest he will earn after six years. (4 marks)
(ii) Robert Milele is planning to invest in rental properties. He has approached the local bank for a mortgage loan, and received an offer of Sh. 8 million at an annual mortgage interest rate of 9% for a period of 15 years compounded monthly.
Required:
Determine the monthly mortgage payments to be made by Robert Milele. (4 marks)
(Total: 20 marks)

QUESTION FIVE
(a) Discuss four dividend pay-out policies adopted by different companies in your country. (8 marks)
(b) The following information relates to the prices of security Y and security Z and the dividend per share for the last four years.
<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend per share (Security Y) Sh.</th>
<th>Market price (Security Y) Sh.</th>
<th>Dividend per share (Security Z) Sh.</th>
<th>Market price (Security Z) Sh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>200</td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>230</td>
<td>2</td>
<td>65</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>210</td>
<td>2</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>260</td>
<td>3</td>
<td>85</td>
</tr>
</tbody>
</table>
Required:
(i) The rate of return of security Y and security Z. (3 marks)
(ii) Expected average return for each security. (3 marks)
(iii) Standard deviation for each security. (6 marks)
(Total: 20 marks)
| Period | PVIF | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | 21% | 22% | 23% |
|-------|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1     | 0.9910 | 0.9804 | 0.9709 | 0.9610 | 0.9524 | 0.9436 | 0.9354 | 0.9275 | 0.9199 | 0.9127 | 0.9059 | 0.9004 | 0.8953 | 0.8905 | 0.8861 | 0.8822 | 0.8786 | 0.8753 | 0.8723 | 0.8705 |
| 2     | 0.8916 | 0.8388 | 0.7936 | 0.7552 | 0.7144 | 0.6722 | 0.6303 | 0.5896 | 0.5480 | 0.5046 | 0.4606 | 0.4149 | 0.3678 | 0.3184 | 0.2668 | 0.2125 | 0.1548 | 0.0939 | 0.0303 | 0.0000 |
| 3     | 0.8320 | 0.7477 | 0.6751 | 0.6031 | 0.5308 | 0.4584 | 0.3853 | 0.3115 | 0.2370 | 0.1618 | 0.0857 | 0.0000 |

Present Value of 1 Received at the End of n Periods:

\[ \text{PVIF}_r = \frac{1}{(1+r)^n} \]

where \( r \) is the interest rate and \( n \) is the number of periods.

The factor is zero to four decimal places.