END TERM EXAMINATION
SECOND SEMESTER [MBA] MAY-JUNE 2011

Paper Code: MS104/MSP102
Subject: Financial Management
Time: 3 Hours
Maximum Marks: 60

Note: Attempt any five questions. Value tables and normal distribution tables are allowed.

Q1 Explain any four briefly of the following:
(a) What is the agency problem? How do market forces act to prevent/minimize this problem?
(b) Explain the concept of continuous compounded rate of interest.
(c) Describe briefly the procedure of determining cash flow from operating activities as per indirect method of AS-3.
(d) What is factoring? Give a brief account of the major functions of a factor.
(e) Explain briefly the view of traditional writers on the relationship between capital structure and value of firm.
(f) What do you understand by "Signalling Hypothesis"? Explain briefly.

Q2 A software company is considering installing an air conditioning plant for the entire company. It has two options X and Y.
Plant X cost Rs.5,00,000 to purchase and install. It has 5 years of useful life and will be depreciated over this period on straight-line basis to a book value of Rs.2,50,000. However, the management hopes to sell it for Rs.40,000. Maintenance and other operating costs of running the plant are Rs.2,50,000 per year.
Plant Y has a 10 year life but costs Rs.7,00,000 to purchase and install. It will be depreciated over 8 years on straight-line basis to zero book value. However, at the beginning of year 7 it is expected to cost Rs.1,00,000; it is not to be capitalized but to be expended. At year-end 10, the plant is expected to have a salvage value of Rs.30,000, which is likely to be equivalent to the removal cost of plant. Plant Y is less expensive to run than Plant X as it requires Rs.2,20,000 per year to operate.
Corporate tax rate is 35%; cost of capital is 12%. Assuming straight-line method of depreciation, as well as the time period of depreciation are acceptable for tax purchase, advise which plant should be purchased by the company.

Q3 The two companies X and Y belong to the same risk class. They have everything in common except that firm Y has 10% debentures of Rs.5 lakh. The valuation of the two firms is assumed to be as follows:

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net operating income (EBIT)</td>
<td>Rs.7,50,000</td>
<td>Rs.7,50,000</td>
</tr>
<tr>
<td>Interest on debt</td>
<td></td>
<td>50,000</td>
</tr>
<tr>
<td>Earning to equity holders</td>
<td>7,50,000</td>
<td>7,00,000</td>
</tr>
<tr>
<td>Equity capitalization</td>
<td>0.125</td>
<td>0.14</td>
</tr>
<tr>
<td>Market value of equity</td>
<td>60,00,000</td>
<td>50,00,000</td>
</tr>
<tr>
<td>Overall capitalization rate</td>
<td>0.125</td>
<td>0.1363</td>
</tr>
<tr>
<td>Debt-equity ratio</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Market value of firm</td>
<td>60,00,000</td>
<td>5000000+500000</td>
</tr>
<tr>
<td></td>
<td>=5,50,000</td>
<td></td>
</tr>
</tbody>
</table>

www.onlinesera.net
An investor owns 10% of the equity shares of the overvalued firm. Determine his investment cost of earnings the same income so that he is at a break-even point. Will he gain by investing in the under valued firm?

Mr. Ramesh will retire at the end of 10 years. Upon retirement he is entitled to receive an annual end-of-year payment of Rs.1,20,000 for 15 years. If he dies prior to the end of the 15 year period, his heirs would be entitled to the contractual payment. His employers, ABC Ltd. has to accumulate funds to provide a retirement annuity by making an equal annual year-end deposits into an account earning 7% interest. When the 15 year payment period begins, the company would transfer the accumulated fund into an account earning a guaranteed 9%. At the end of the payment period, the account balance would be zero.

(a) How much would the company accumulate by the end of 10th year?
(b) What should be the company’s equal annual end-of-year deposit into the account over the 10 year period to fund fully the retirement annuity?
(c) How much would the company have to deposit annually during 10 year accumulation period, if it could earn 8%?
(d) How much would the company have to deposit annually during the 10 year period of accumulation if the retirement annuity was perpetuity?

The following information is available in respect of a firm:
Capitalisation rate = 0.10, Earning per share = Rs.10
Assumed rate of return on investment = (a) 15% (b) 8% and (c) 10%.
Show the effect of dividend policy on market price of share assuming payout ratio (a) 0% (b) 25% (c) 50% (d) 75% and (e) 100% using Waltor’s model.

XYZ firm cash flows deviate randomly. If transfer cost is Rs.1000 and variance of daily cash flows is Rs.6000 and cost of holding cash is 20% and if lower cash balance is Rs.5000 then compute-
(a) Target cash balance
(b) Upper cash balance
Using Miller-Orr model for optimum cash balance under uncertainty.

A project involving an outlay of Rs.10lacs has the following inflows associated with it.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Probability</strong></td>
<td><strong>Cash flow</strong></td>
<td><strong>Probability</strong></td>
</tr>
<tr>
<td>0.4</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>0.5</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>0.1</td>
<td>6</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Assume that the cash flows are independent. Calculate the expected net present value and standard deviation of net present value assuming that cost of capital is 10%. Also, find out probability of NPV being zero or less if NPV and standard deviation are considered to be normal.

Write short notes on any three of the following:
(a) Modified Internal Rate of Return
(b) Lintner model of dividend
(c) DuPont Analysis
(d) Sustainable Growth Rate
(e) Inflation and Capital Budgeting

************ www.onlineseva.net 78