MGT201 – FINANCIAL MANAGEMENT
ASSIGNMENT – SPRING 2009
TOTAL MARKS: 40

Due Date to Submit the Assignment is
TUESDAY, JUNE 09, 2009

INSTRUCTIONS: (Please read the instructions carefully before starting the assignment.)

• This assignment covers all the lessons that have been delivered so far.
• This assignment aims to provide you not only the subjective knowledge but also a practical scenario based perspective of the common topics of your course.
• The assignment consists of 20 multiple choice questions (MCQs) carrying 2 marks each.
• You are supposed to read and understand the information sets carefully and then to use that information for attempting MCQs.
• Read the question statement carefully and select one most appropriate answer for each MCQ. Selection of double options will be marked ZERO.
• All instructions will be considered while marking. So, be careful while solving the assignment.
• You must provide your solution in the following tabular format/shape:

<table>
<thead>
<tr>
<th>Question No.</th>
<th>Selected Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
</tr>
</tbody>
</table>

• Make sure that you upload the solution in Document Format (Microsoft Word or OpenOffice Writer) and according to above mentioned “Tabular Format”; otherwise your solution will be marked as zero ‘0’.
• Make sure that you upload your solution file on VULMS before the due date/time. No solution will be accepted through e-mail after the due date.
• If you have any problem with your VULMS or uploading, then you can send your solution through e-mail within the due date and time at mgt201@vu.edu.pk
• Cheating or copying of solution is strictly prohibited; no credit will be given to copied solutions.
• No solution will be accepted through your personal e-mail accounts (e.g. Yahoo, Hotmail, G-mail etc.)
• Please Note that you are required to pay concentration to this assignment as it carries considerable marks.

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Following are the **sets of information** about Sumi Manufacturing Company. You are required to read and understand the information carefully and then attempt the questions provided at the end.

**Set (1):**

The Company is considering replacing one of its machines with either of two new machines – machine X or machine Y. Machine X is a highly automated, computer-controlled machine; machine Y is a less expensive machine that uses standard technology. To analyze these alternatives, Mr. Hamid, a financial analyst, prepared estimates of the initial investment and expected cash inflows associated with each machine, which are shown in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Machine X</th>
<th>Machine Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Investment (II)</td>
<td>Rs. 700,000</td>
<td>Rs. 400,000</td>
</tr>
<tr>
<td>Years (t)</td>
<td>Cash Inflows (CFₜ)</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Rs. 130,000</td>
<td>Rs. 90,000</td>
</tr>
<tr>
<td>2</td>
<td>180,000</td>
<td>120,000</td>
</tr>
<tr>
<td>3</td>
<td>170,000</td>
<td>100,000</td>
</tr>
<tr>
<td>4</td>
<td>165,000</td>
<td>85,000</td>
</tr>
<tr>
<td>5</td>
<td>450,000</td>
<td>205,000</td>
</tr>
</tbody>
</table>

Note that Mr. Hamid plans to analyze both machines over a 5-year period. At the end of that time, the machines would be sold, thus accounting for the large fifth-year cash inflows. He decides to apply firm’s 12 percent cost of capital for analyzing the machines.

**Set (2):**

Mr. Anwar Baig, the chief financial officer for Sumi Manufacturing Company has gathered the following relevant data on the firm’s bonds and stocks to perform some necessary analysis:

**BONDS:** The firm has a Rs. 1,000 par value bond with an 9 percent coupon interest rate outstanding. The bond has 10 years remaining to its maturity date.

**STOCKS:** The firm’s common stock currently pays an annual dividend of Rs. 1.50 per share. The required return on the common stock is 10 percent.

**Set (3):**

If you analyze the capital structure of the Company, you will find following Target capital structure:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Debentures</td>
<td>Rs. 3,000,000</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>Rs. 480,000</td>
</tr>
<tr>
<td>Common Stock</td>
<td>Rs. 6,520,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Rs. 10,000,000</td>
</tr>
</tbody>
</table>

Under the prevailing market conditions, financial analysts have estimated a risk free rate of return of 10% and a market rate of return of 14%. The corporation’s common stocks have a beta (β) of 1.5. Bonds carry an interest rate of 9.5%. Preferred stocks have a return of 10% p.a. and corporate tax rate is 40%.
Based on the information provided in set (1), answer the following questions: (Choose the most appropriate answer from the given options)

1. What is the payback period for Machine X?
   a. 3.00 Years
   b. 3.80 Years
   c. 4.12 Years
   d. 4.49 Years

2. What is the payback period for Machine Y?
   a. 3.10 Years
   b. 3.85 Years
   c. 4.02 Years
   d. 4.12 Years

3. What is the Net Present Value (NPV) for Machine X?
   a. Rs. 17,539
   b. Rs. 25,120
   c. Rs. 40,772
   d. Rs. 45,956

4. What is the Net Present Value (NPV) for Machine Y?
   a. Rs. 11,085
   b. Rs. 17,539
   c. Rs. 25,132
   d. Rs. 40,772

5. What is the Internal Rate of Return (IRR) for Machine X?
   a. 12.1%
   b. 13.9%
   c. 15.3%
   d. 16.1%

6. What is the Internal Rate of Return (IRR) for Machine Y?
   a. 12.4%
   b. 13.6%
   c. 15.3%
   d. 16.1%

7. What is the Profitability Index (PI) for Machine X?
   a. 1.00
   b. 1.02
   c. 1.04
   d. 1.06
8. What is the Profitability Index (PI) for Machine Y?
   a. 1.01
   b. 1.02
   c. 1.03
   d. 1.04

9. Which machine(s) should be selected if both the projects are mutually exclusive?
   a. Machine X
   b. Machine Y
   c. Both machine X and machine Y
   d. Neither machine X nor Machine Y

10. Which Machine(s) should be selected if both the projects are independent?
    a. Machine X
    b. Machine Y
    c. Both machine X and machine Y
    d. Neither machine X nor Machine Y

**Based on the information provided in set (2), answer the following questions:**
(Choose the most appropriate answer from the given options)

11. If interest is paid *annually*, what is the value of the bond when the required stated return
    is 9 percent?
    a. Rs. 830
    b. Rs. 1,000
    c. Rs. 1,146
    d. Rs. 1,295

12. If interest is paid *annually*, what is the value of the bond when the required stated return
    is 12 percent?
    a. Rs. 830
    b. Rs. 966
    c. Rs. 1,068
    d. Rs. 1,123

13. Using 8 percent required return, what is the bond’s value when interest is paid *semiannually*?
    a. Rs. 830
    b. Rs. 966
    c. Rs. 1,068
    d. Rs. 1,123

14. What will be the value of common stock if dividends are expected to grow at an annual
    rate of zero percent to infinity?
    a. Rs. 12.5
    b. Rs. 15.0
    c. Rs. 22.0
15. What will be the value of common stock if dividends are expected to grow at a constant annual rate of 5 percent to infinity?
   a. Rs. 12.5
   b. Rs. 15.0
   c. Rs. 22.0
   d. Rs. 31.5

Based on the information provided in set (3), answer the following questions:
(Choose the most appropriate answer from the given options)

16. What percentage of financing includes common stocks?
   a. 4.80 %
   b. 30.0 %
   c. 50.0 %
   d. 65.2 %

17. What is the percentage of financing that is debt?
   a. 4.80 %
   b. 30.0 %
   c. 50.0 %
   d. 65.2 %

18. Which of the following capital source is NOT included in WACC calculation?
   a. Common Stock
   b. Preferred Stock
   c. Bonds
   d. None of the given options

19. What is the cost of common stock?
   a. 9.50 %
   b. 10.0 %
   c. 12.5 %
   d. 16.0 %

20. What is weighted average cost of capital (WACC) for Sumi Manufacturing Company?
   a. 4.80 %
   b. 10.4 %
   c. 12.6 %
   d. 14.2 %

~~~ BEST OF LUCK ~~~