Examination Period 3: 2018/19

ACC200119N

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Financial Management</th>
</tr>
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<tbody>
<tr>
<td>Level</td>
<td>Five</td>
</tr>
<tr>
<td>Time Allowed</td>
<td>Two hours and thirty minutes plus fifteen minutes reading time</td>
</tr>
</tbody>
</table>

Instructions to students:

- Enter your student number **not** your name on all answer books.
- Students are encouraged to use the **first fifteen minutes** of the exam to read the questions carefully and to plan answers.
- Answer **three** questions: **one** from **Section A** and **two** from **Section B**.
- Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
- The use of a calculator **is** permitted.

<table>
<thead>
<tr>
<th>No. of Pages</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>No. of Questions</td>
<td>5</td>
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</table>
Section A

Answer the compulsory question in this section.

Question 1

Waterside Private Limited is examining the possibility of purchasing a new machine. This new machine will cost £50,000, have a five-year life and a scrap value of £7,500. An additional investment of £10,000 in cash and £8,000 in stock will be needed at the outset. This is recoverable at the end of the project. The accountant has provided you with the following estimates for the annual trading accounts:

<table>
<thead>
<tr>
<th>Description</th>
<th>(£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>100,000.00</td>
</tr>
<tr>
<td>Less: Labour</td>
<td>(30,000.00)</td>
</tr>
<tr>
<td>Less: Materials</td>
<td>(20,000.00)</td>
</tr>
<tr>
<td>Less: Overheads</td>
<td>(35,000.00)</td>
</tr>
<tr>
<td>Less: Depreciation</td>
<td>(10,000.00)</td>
</tr>
<tr>
<td><strong>Annual profit</strong></td>
<td><strong>5,000.00</strong></td>
</tr>
</tbody>
</table>

Overheads consist of 20% central administrative costs which are incurred with or without this project. The machine will be eligible for a 25 per cent writing-down allowance (on a declining balance). Tax is payable at 30 per cent in the year of profit creation.

For a project of this risk class a minimum return of 14 per cent is considered acceptable. Assume no inflation.

Required:

a. Based on the above information, calculate the following:
   i. NPV (10 marks)
   ii. IRR (Hint: Use 20% and 24% to find the IRR.) (7 marks)

b. Most of the members of the board of directors have never been on a finance course and do not understand any of the finance jargon. They have asked you to persuade them that the appraisal methods you have used in (a) above can be relied on. Prepare a presentation for the board of directors explaining the reasoning and justification for using your chosen project appraisal technique and your treatment of specific items in the accounts. You will need to explain in detail the concepts such as the time value of money, opportunity cost, allocated overheads and sunk cost in plain English. (8 marks)

Total: 25 marks

End of Section A
Section B follows overleaf
Section B

Answer two out of four questions in this section.

Question 2

a. How might clientele effects influence dividend policy? (9 marks)

b. What is the effect of taxation on dividend pay-out rates? (8 marks)

c. What is meant by “asymmetry of information” and “dividends as signals”? (8 marks)

Total: 25 marks

Question 3

ABCDF plc is trying to introduce an improved method of assessing investment projects using discounted cash flow techniques. For this, it must obtain a cost of capital to use as a discount rate. The finance department has the following information:

- The company has an equity beta of 1.20, which may be taken as the appropriate adjustment to the average risk premium. The yield on the risk-free government securities is 5% and the historic premium above the risk-free rate is estimated at 3% for shares.
- The market value of the firm’s equity is three-times the value of its debt.
- The cost of borrowed money to the company is estimated at 15% (before tax shield benefits).
- The corporate tax is 21%.
- Assume no inflation.

Required:

a. Estimate the equity cost of capital using the capital asset pricing model (CAPM). Create an estimate of the weighted average cost of capital (WACC). (9 marks)

b. Comment on the appropriateness of using this technique for estimating the cost of capital for project appraisal purposes for a company with many subsidiaries in different markets. (9 marks)

c. Given the difficulties in the calculation of WACC are companies justified in using rules of thumb rather than theoretically precise methods? Explain the difficulties and describe the approximations used by business people. (7 marks)

Total: 25 marks

Section B continues overleaf
Question 4

a. Explain the following terms:
   i. scrip issues
   ii. scrip dividends
   iii. share splits
   iv. consolidation of shares
   v. warrants

(15 marks)

b. Briefly explain what is meant by a deep-discounted rights issue. Identify and explain the main reasons why a company might raise finance by using a deep-discounted rights issue method.

(10 marks)

Total: 25 marks

Question 5

Assume John has two shares to invest (WaterSide and ParkCampus) and that the returns will depend on the state of the economy as follows:

<table>
<thead>
<tr>
<th>State</th>
<th>Probability</th>
<th>Return WaterSide (%)</th>
<th>Return ParkCampus (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>0.3</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Steady</td>
<td>0.4</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Recession</td>
<td>0.3</td>
<td>20</td>
<td>8</td>
</tr>
</tbody>
</table>

Required:

a. Calculate the expected return and standard deviation for WaterSide and Park Campus.

(10 marks)

b. Calculate the covariance of WaterSide and ParkCampus.

(5 marks)

c. Assuming John invests 75% your money in WaterSide and the remainder in Park Campus, calculate the expected return and standard deviation of his investment/portfolio.

(6 marks)

d. Explain why James would be interested in the standard deviation of a business and/or portfolio.

(4 marks)

Total: 25 marks

End of Section B
Tables follow overleaf
Table A-1 Future Value Interest Factors for One Dollar Compounded at r Percent for n Periods: $FVIF = (1 + \frac{r}{n})^T$

<table>
<thead>
<tr>
<th>Period/Rate</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
<th>25%</th>
<th>30%</th>
<th>35%</th>
<th>40%</th>
<th>45%</th>
<th>50%</th>
<th>55%</th>
<th>60%</th>
<th>65%</th>
<th>70%</th>
<th>75%</th>
<th>80%</th>
<th>85%</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.010</td>
<td>1.020</td>
<td>1.030</td>
<td>1.050</td>
<td>1.060</td>
<td>1.080</td>
<td>1.100</td>
<td>1.120</td>
<td>1.150</td>
<td>1.180</td>
<td>1.220</td>
<td>1.260</td>
<td>1.320</td>
<td>1.382</td>
<td>1.452</td>
<td>1.532</td>
<td>1.628</td>
<td>1.741</td>
<td>1.869</td>
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<tr>
<td>2</td>
<td>1.020</td>
<td>1.040</td>
<td>1.060</td>
<td>1.100</td>
<td>1.120</td>
<td>1.160</td>
<td>1.200</td>
<td>1.240</td>
<td>1.300</td>
<td>1.360</td>
<td>1.430</td>
<td>1.500</td>
<td>1.590</td>
<td>1.690</td>
<td>1.808</td>
<td>1.937</td>
<td>2.074</td>
<td>2.226</td>
<td>2.401</td>
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<tr>
<td>10</td>
<td>1.100</td>
<td>1.210</td>
<td>1.480</td>
<td>2.140</td>
<td>2.940</td>
<td>4.050</td>
<td>5.300</td>
<td>6.820</td>
<td>8.720</td>
<td>10.950</td>
<td>13.590</td>
<td>17.850</td>
<td>23.900</td>
<td>33.080</td>
<td>46.300</td>
<td>65.970</td>
<td>89.000</td>
<td>116.200</td>
<td>148.100</td>
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</tbody>
</table>

Table A-2 Future Value Interest Factors for a Dollar-Annuity: $FVIFA = (1 + \frac{r}{n})^{T+1/n} - 1$