Summer Examinations 2015

FINM03715NB

Module Title: Managing Finance and Information
Level: Seven
Time Allowed: Two hours, plus fifteen minutes reading time. Students must not commence answering the questions until the reading time has ended

Instructions to students:

- Enter your student number not your name on all answer booklets.
- During the 15 minutes reading time, students are permitted to make notes on the examination paper but not the answer booklet. Students should begin answering the questions after the reading time has ended.
- **Section A** – This section contains one compulsory question worth 50%.
- **Section B** – This section contains four questions. You must attempt two questions from this section; each is worth 25%.
- Please write clearly in your answer booklets. If you have used any calculations to support your arguments you should indicate how you arrived at your figures.
- Students may bring the previously circulated instructions, accounts, analysis sheets, and any notes and books into the examination room.
- The use of a silent calculator is permitted.
- No papers should be handed in other than the answer booklets.
- You will only be given credit for work written in your answer booklets.

<table>
<thead>
<tr>
<th>No. of Pages</th>
<th>6</th>
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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.

**Question 1**

**Morrison's Supermarkets plc**

You are to prepare for the examination by reading the annual report & accounts provided and calculating the financial ratios listed on the analysis sheet for the last three years figures to 2014.

You should also carry out some background research in the library – the company website and global business browser etc.

You must not approach the company directly. If you approach the company you will be dealt with most severely under the University’s disciplinary procedures.

**Morrison's Supermarkets plc** (hereinafter “the company”)

**a.** Calculate the following comparable ratios for each of the following measures of performance for the company in the last three years under review and tabulate them namely:

i. Gross profit margin
ii. Average trade debtors settlement period
iii. Average inventory turnover period
iv. Gearing (Long-term Debt to Equity)
v. Interest cover
vi. Acid test ratio

(18 marks)

All calculations must be clearly shown.

**b.** Using the data you have tabulated in **a.** above and industry averages from your research, write a report to the board of directors of Morrison's Supermarkets plc analysing the company’s performance in the last three years under the following sub-headings:

- Profitability
- Asset utilisation and efficiency
- Long-term solvency
- Short-term solvency

(32 marks)

(Total: 50 marks)

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End of Section A

Section B follows overleaf
Section B

Answer two questions only.

Question 2

The business plan for AB Ltd for 2016 reveals the following:

Fixed Overheads £60,000
Expected Volume of sales 18,000 units
Variable cost per unit £3
Selling price per unit £8

Required:

a. Find the contribution per unit.  
   (2 marks)

b. Find the number of units to break even.  
   (2 marks)

c. Determine the sales at breakeven point.  
   (2 marks)

d. Find the contribution to sales ratio i.e. what percentage of sales is contribution.  
   (2 marks)

e. What number of units will need to be sold to achieve a profit of £12,000?  
   (4 marks)

f. What level of sales will achieve a profit of £12,000?  
   (2 marks)

g. What will be the margin of safety in units and expressed as a percentage if the company sells (i) 24,000 units and (ii) 30,000 units?  
   (6 marks)

h. What are the possible weaknesses of the breakeven analysis that managers need to consider when using the information calculated above?  
   (5 marks)

(Total: 25 marks)
Question 3

ABC Limited, based in Derby, makes summer chairs popular within the east coast of England. At the start of May 2015, the company had a cash balance in bank of £15,000, but directors of the company are worried of cash planning to sustain the business in the next coming four months to September 2015, when demand is expected to increase. In April 2015, raw suppliers delivered items worth £120,000.

Consequently, the directors have decided to review their plans for the months to 30th September 2015 as below:

All units are in £’000

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>190</td>
<td>380</td>
<td>520</td>
<td>600</td>
<td>320</td>
</tr>
<tr>
<td>Raw Material Purchases</td>
<td>150</td>
<td>300</td>
<td>362</td>
<td>409</td>
<td>175</td>
</tr>
<tr>
<td>Admin Expenses</td>
<td>48</td>
<td>50</td>
<td>72</td>
<td>55</td>
<td>48</td>
</tr>
<tr>
<td>Transport Expenses</td>
<td>22</td>
<td>24</td>
<td>28</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Taxation payment</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Finance payments</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Plant renovations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>18</td>
<td>6</td>
</tr>
</tbody>
</table>

Notes:

i. Suppliers of raw materials allow two months’ credit.

ii. The gross profit margin is 35%.

iii. 25% of customers have a special facility of zero interest and pay after 12 months in one lump sum. The remaining pay by cash in following month.

iv. The business has a bank loan, which it pays off interest in monthly instalments of £4,000. The interest element represents 22% of each instalment.

v. Administration expenses are paid when incurred. The item includes a charge of £8,000 each month in respect of depreciation.

vi. Transport expenses are payable in the following month.

Required:

a. Prepare a cash budget for the four months ending 30th September 2015 which shows the cash balance at the end of each month based on the plans set out in the table above.

   (20 marks)

b. What problems is ABC Limited likely to face in the next four months? Can you suggest how the company might deal with the problems you have identified?

   (5 marks)

(Total: 25 marks)
Question 4

Rivonia Limited has interest in two investment projects A and B. The company can only afford to spend £114,500, and need to choose one of the two. The following information is provided (All units are in £):

<table>
<thead>
<tr>
<th></th>
<th>Project A</th>
<th>Project B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital expenditure</td>
<td>114,500</td>
<td>114,500</td>
</tr>
<tr>
<td>Year 1 Profit</td>
<td>46,000</td>
<td>37,500</td>
</tr>
<tr>
<td>Year 2 Profit</td>
<td>42,000</td>
<td>22,500</td>
</tr>
<tr>
<td>Year 3 Profit</td>
<td>35,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Year 4 Profit/(loss)</td>
<td>(18,000)</td>
<td>30,000</td>
</tr>
<tr>
<td>Year 5 (loss)</td>
<td>(12,000)</td>
<td>(22,500)</td>
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At the end of the five years there is not expected to be any scrap value and it is company policy to charge depreciation on a straight line basis. The company has estimated that its cost of capital is 15%.

<table>
<thead>
<tr>
<th>Year</th>
<th>15% NPV</th>
<th>30% NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.867</td>
<td>0.769</td>
</tr>
<tr>
<td>2</td>
<td>0.756</td>
<td>0.592</td>
</tr>
<tr>
<td>3</td>
<td>0.658</td>
<td>0.455</td>
</tr>
<tr>
<td>4</td>
<td>0.572</td>
<td>0.350</td>
</tr>
<tr>
<td>5</td>
<td>0.497</td>
<td>0.269</td>
</tr>
<tr>
<td>6</td>
<td>0.432</td>
<td>0.207</td>
</tr>
<tr>
<td>7</td>
<td>0.376</td>
<td>0.159</td>
</tr>
</tbody>
</table>

Required:

a. Calculate for each project:
   i. The payback period in years and months.  
      (4 marks)
   ii. The net present value.  
       (8 marks)
   iii. The accounting rate of return.  
        (4 marks)

b. Briefly state one relative merit of each method of evaluation mentioned in a. above.  
   (3 marks)

c. Explain which project you would recommend for Rivonia Limited to accept.  
   (6 marks)

(Total: 25 marks)
**Question 5**

Peterson Limited is planning its production mix for the next period. The company is able to sell any one or more (or all four) of four separate products. Estimated costs, sales and production data are:

<table>
<thead>
<tr>
<th>Product</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price per unit</td>
<td>£50</td>
<td>£60</td>
<td>£70</td>
<td>£80</td>
</tr>
</tbody>
</table>

Variable costs:

- Labour (at £7 per hour) | £14 | £28 | £35 | £28 |
- Material (at £4 per kg)  | £16 | £8  | £24 | £8  |

Resources per unit:

- Labour (hours) | 2  | 4  | 5  | 4  |
- Material (kgs) | 4  | 2  | 6  | 2  |

Maximum demand (units) expected are 6,000 for each product.

The expected labour hours are limited to 34,000 and the expected fixed costs are £320,000, for the planned period.

**Required:**

a. Advise the company on the best mix of the products for the coming period in light of the availability of the type of labour required. You are required to clearly identify the shortfall in labour hours.  
   (15 marks)

b. Prepare a simple statement which clearly show the maximum profit which could be achieved in the period.  
   (5 marks)

c. What action(s) might the company take to try to remove the constraint and increase its production?  
   (5 marks)

*(Total: 25 marks)*