**Section I. Appraisal Methods**

Marine Spray Clothing are a wholesaler and provide clothing and sailing accessories to the Marine industry. Business has been strong over the last few years, and as a result, Marine has excessive cash reserves. They are also in negotiations with a large new customer to provide all their sailing requirements over the next 5 years. Marine is currently operating at full capacity and in order to take on the new business, Marine will need room to expand. The business next door has recently moved giving Marine an opportunity to substantially expand their operations and warehouse premises.

Marine will take on the remainder of the 5-year lease of the new warehouse premises. The initial investment will include £2m in repairs and renewals to bring the premises up to standard and an additional £8 million in equipment. The entire investment of £10 million is expected to have a useful life of 5 years and a residual value of £2 million. Any depreciation should be calculated on a straight- line basis.

Marine has estimated future cash inflows and outflows over the following 5 years of the project as follows:

**Yr Inflow Outflow**

|  |  |  |
| --- | --- | --- |
| **1** | **3,000,000** | **-2,000,000** |
| **2** | **5,000,000** | **-3,000,000** |
| **3** | **8,000,000** | **-2,000,000** |
| **4** | **7,000,000** | **-2,000,000** |
| **5** | **3,000,000** | **-1,000,000** |

Marine’s cost of capital is 7%.

The Finance Director has been asked by the Board of Directors to appraise the viability and determine the future cashflows and profitability generating by the investment.

She has been asked to give a presentation to the Board using three appraisal methods:

* Discounted Payback
* ARR
* NPV

**Required:**

1. Calculate the Discounted Payback. (**6 marks**)

1. Calculate the ARR. (**6 marks**)

1. Calculate the NPV. (**6 marks**)

1. You will also need to explain the results of the three appraisal methods and advise the board on if they should take up the contract and why. Keep in mind that the board are all mariners and know a lot of about the marine business but have no finance or accounting experience. As a result, you will need to explain to them all aspects of your analysis and figures. You should also perform some research with references. (**12 marks)**

**Total Marks 30**

**Section II. Breakeven & Margin of Safety**

Marine has been approached by a large organisation for a contract to supply lifejackets for one year. The Finance Director for Marine believes they have three options to maximise the profit from this contract.

**Option 1:**

They expect to sell 25,000 lifejackets at the current selling price of £70 per lifejacket. Their material cost is currently £35 per lifejacket and the labour cost is £20 per lifejacket. The fixed cost is £250,000. **Option 2:**

Marine believes that with a decrease in the selling price of 15%, the customer may increase their demand by 20%. With the increase in the sales volume, Marine believes they could negotiate a reduction of £10 in the material cost per lifejacket, although labour cost would stay the same.

**Option 3:**

Invest in a new machine costing £60,000. The new machine would decrease the labour cost by £5 per lifejacket. The selling price would remain at 15% discount and material cost would remain the same at the original cost of £35 per lifejacket as shown in Option 1.

The target profit in all options is £150,000.

**Required:**

1. Define and explain breakeven and margin of safety, using diagrams if necessary. (**3 marks**)
2. Calculate the breakeven in units on all 3 options. (**9 marks**)
3. Calculate margin of safety in units on all 3 options. (**3 marks**)
4. Calculate the required sales in units for the target profit on all 3 options. (**3 marks**)
5. Recommend and explain which option Marine should consider. (**2 marks**)

You should also perform some research with references.

**Total Marks 20**

**Section III. Budgeting and Control**

The Board of Directors have asked the Finance Director how Budget Controls would enable the business to continue growing. The Finance Director will need to critically evaluate the advantages and disadvantages of Budgeting.

Explain and evaluate the advantages (**10 marks**) and disadvantages (**10 marks**) of Budgeting as a control mechanism.

You should also perform some research with references.

**Total Marks 20**

**Section IV. Financial Ratios – Calculation & Interpretation**

Six months has now past, and Marine has experienced continued growth and expansion which has attracted the attention of Big Liner PLC, a global manufacturer and retailer of sailing clothing and accessories who are looking for potential acquisitions. They have made some approaches to the Board of Directors and have asked for some information in financial results and analysis. The Board have asked the Finance Director to produce the Financial Statements (below) and has asked her to carry out some Variance Analysis including the following ratios:

**Profitability:**

* Gross Profit Margin
* Operating Profit Margin
* Return of Equity

**Liquidity:**

* Current Ratio
* Quick acid test

**Investment:**

* Gearing Ratio
* Interest Cover

**Efficiency:**

* Inventory Days
* Receivable Days
* Payable Days

Using 5 of these ratios (1 each from Profitability, Liquidity, and Investment; 2 from Efficiency) explain the ratio, what it means and what it is measuring (**5 marks**), calculate the ratio for both years (**10 marks**) and discuss the results/fluctuations in the two years in relation the company (**5 marks**). You should also perform some research with references.

**Total Marks 20**

**Income Statement**

|  |  |  |
| --- | --- | --- |
|  | **2021** | **2020** |
|  |  |  |
| **Sales** | £890m | £560m |
| Cost of sales | £(750)m | £(448)m |
| **Gross profit** | £140m | £112m |
|  |  |  |
| Operating expenses | £(69)m | £(60)m |
| **Operating profit** | £71m | £52m |
|  |  |  |
| Interest payable | £(9)m | £(4)m |
| **Profit after interest** | £62m | £48m |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **Non-Current Assets** |  | £124m |  |  | £106m |
|  |  |  |  |  |  |
| **Current assets** |  |  |  |  |  |
| Inventories | £59m |  |  | £45m |  |
| Trade receivables | £48m |  |  | £51m |  |
| Cash at bank | £12m |  |  | £2m |  |

£98m

£

1

19

m

**£**

**24**

**3**

**m**

**Total assets**  **£204m**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Equity and liabilities** |  |  |  |  |
| Share capital | £100m |  |  | £100m |
| Retained profits | £88m |  |  | £26m |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | £188m |  |  | £126m |
|  |  |  |  |  |  |
| **Current liabilities** |  |  |  |  |  |
| Trade payables | £50m |  |  | £55m |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | £50m |  |  | £55m |
|  |  |  |  |  |  |
| **Non-Current liabilities** |  |  |  |  |  |
| Bank Loan | £5m |  |  | £23m |  |

£23m

£

5

m

**£**

**24**

**3**

**m**

**Total equity and liabilities**  **£204m**

**Organisation and layout of Presentation Slides: 4 Marks**

**Bibliography and References: 6 marks**

**Total Coursework Marks 100**