

**UNIVERSITY OF BOLTON**  
**INSTITUTE OF MANAGEMENT**  
**BA (Hons) Business Management**  
**SEMESTER 1 EXAMINATION 2021/22**  
**FINANCIAL MANAGEMENT & DECISION MAKING**  
**MODULE NO: BMP5006**

Date: Thursday 13 January 2022

Time: 10.00 – 1.00

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**INSTRUCTIONS TO CANDIDATES:**

There are Five questions on this paper.

Answer ALL questions.

This examination is 3 hours.

This is an open book examination.

You **MUST** hand in the question paper with your answer booklet.

(Discount tables are attached at the back of this question paper.

Students are allowed to bring into the exam hall one A4 size sheet of paper with handwritten notes.

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**Question 1**

Raymond has a small business which manufactures small toys. He has produced a summary of his costs and revenues below and has asked you to produce some management information.

Fixed costs	£420,000
Variable cost	£20
Forecast output (Sales)	20,000 units
Selling price	£50

Required:

- a) Calculate the Breakeven point in Units (4 marks)
  - b) Calculate the Breakeven point in Sales (1 marks)
  - c) Calculate the Margin of Safety in Units and in Percentage. (5 marks)
  - d) Evaluate the usefulness of break-even analysis. (10 marks)
- Total marks 20**

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### **Question 2**

Marshall Ltd is considering investing in the following projects.

The company anticipates a start-up investment cost of £3,000,000 for Project X and £2,000,000 for Project Y. Both will have a lifespan of 5 years. The net after tax cash flows of the projects are as follows:-

	Project X (£)	Project Y (£)
1	675,000	800,000
2	850,000	400,000
3	850,000	300,000
4	850,000	400,000
5	800,000	700,000

The discount factor is 10% for both the projects.

Required:

- (a) Calculate the NPV of Project X and Y. (12 marks)
- (b) Justify, with reasons, which of the projects should be undertaken.  
 Consider financial and non-financial factors. (3 marks)
- (c) Evaluate the NPV method of project appraisal. (5 marks)

**Total marks 20**

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**Question 3**

Evaluate the budgeting process as a tool for decision making and control.

**(20 marks)****Question 4:**

George Company has provided you with the financial statements for the last two years.

**Statement of profit and loss for the year end.**

	<b><u>2020</u></b>	<b><u>2021</u></b>
	<b><u>(£000)</u></b>	<b><u>(£000)</u></b>
Revenue	440	330
Cost of Sales	<u>(248)</u>	<u>(192)</u>
Gross Profit	192	138
Expenses	<u>(122)</u>	<u>(88)</u>
Operating Profit	70	50
Interest Payable	<u>(10)</u>	<u>(10)</u>
Profit Before Tax	60	40
Tax	<u>(11)</u>	<u>(7)</u>
Profit After tax	<b><u>49</u></b>	<b><u>33</u></b>

**Question 4 continued over the page**

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**Question 4 Continued**

**Statement of Financial Position as at year end.**

	<u>2020</u>	<u>2021</u>
	<u>(£000)</u>	<u>(£000)</u>
Non-current assets	405	361
Current assets:		
Inventory	45	28
Receivables	65	46
Cash	<u>7</u>	<u>10</u>
<b><u>Total assets</u></b>	<b><u>522</u></b>	<b><u>445</u></b>
<b>Capital &amp; Liabilities</b>		
Capital	250	250
Retained earnings	110	63
Non-current liabilities	100	100
Current liabilities	<u>72</u>	<u>32</u>
<b>Total Capital &amp; Liabilities</b>	<b><u>522</u></b>	<b><u>445</u></b>

**Required:**

(a) You are required to calculate the following ratios:

- |                                 |           |
|---------------------------------|-----------|
| I. Gross profit margin          | (2 marks) |
| II. Operating profit margin     | (2 marks) |
| III. Return on Capital employed | (2 marks) |
| IV. Current Ratio               | (2 marks) |
| V. Quick Ratio                  | (2 marks) |
| VI. Interest cover              | (2 marks) |

**Clearly show workings.**

**Question 4 continued over the page**

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### **Question 4 Continued**

(b) In the light of your calculations comment on the performance of the company over the last two years.

(8 marks)

**Total marks 20**

### **Question 5**

Olympus Company has provided you with the following standard and actual costs.

<b>Standard cost card - Granite</b>	<b>Quantity usage / hour cost</b>	<b>Total unit cost £</b>
Material P2	4kg at £1.20 per kg	4.80
Skilled Labour	1.2 hrs at £8.00 per hr	9.60
Overheads	1.2 hrs at £15 per hr	<u>18.00</u>
<b><u>Total standard cost per unit</u></b>		<b><u>32.40</u></b>

The standard cost for a Granite was calculated assuming an output of 5,000 units

### **Actual Costs/units**

During the last production period the actual output was 5,600 units. 22,960 kg of material was used at a total cost of £28,700.

Skilled Labour – 8,000 hours worked at cost of £72,000.

### **Calculate:**

- |                                 |           |
|---------------------------------|-----------|
| I. Total Material Cost Variance | (4 marks) |
| II. Material Price Variance     | (3 marks) |
| III. Material Usage Variance    | (3 marks) |
| IV. Total Labour Cost Variance  | (4 marks) |
| V. Labour Rate Variance         | (3 marks) |
| VI. Labour Efficiency Variance  | (3 marks) |

**Total 20 marks**

**END OF QUESTION PAPER**

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### Present Value Table

Present value of 1 i.e.  $(1 + r)^{-n}$

Where  $r$  = discount rate and  $n$  = number of periods until payment

#### *Discount rate (r)*

Periods (n)	Discount rate (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239

Periods (n)	Discount rate (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065