

UNIVERSITY OF BOLTON

GREATER MANCHESTER BUSINESS SCHOOL

BSC (HONS) BUSINESS MANAGEMENT

SEMESTER 1 EXAMINATIONS 2023/24

FINANCIAL MANAGEMENT AND DECISION MAKING

MODULE NO: BMP5006

Date: Tuesday 9th January 2024

Time: 10.00am – 1.00pm

INSTRUCTIONS TO CANDIDATES:

There are FOUR questions on this paper.

Answer ALL questions.

This examination is 3 hours.

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

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

Graph paper will be provided

University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

Question 1

Fraser has a small business which manufactures wooden boxes. He has produced a summary of his existing costs and revenues below and has asked you to produce some management information. He is concerned that his rent is likely to increase by £30,000 and variable costs might increase by £2 per unit.

Fixed costs	£430,000
Variable cost	£20
Forecast output (Sales)	20,000 units
Selling price	£45

Required:

- a) Using his existing data calculate the Breakeven point in Units and sales value
(3 marks)
- b) Calculate the Margin of Safety in units and as a percentage.
(2 marks)
- c) Using a graph show the likely impact of the possible increase in his fixed and variable fixed costs.
(10 marks)
- d) Evaluate the usefulness of break-even analysis.
(10 marks)

Total 25 marks

PLEASE TURN THE PAGE

University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

Question 2

Marsh Ltd is considering investing in the following projects.

The company anticipates a start-up investment cost of £2,300,000 for Project X and £1,700,000 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	500,000
3	850,000	500,000
4	850,000	500,000
5	800,000	800,000

The discount factor is 10% for both the projects.

Required:

- (a) Calculate the NPV of Project X and Y. (10 marks)
- (b) Obtain and contrast the IRR for both projects. (7 marks)
- (c) Justify, with reasons, which of the projects should be undertaken. Consider financial and non-financial factors. (3 marks)
- (d) Evaluate the use of methods of project appraisal based on discounting future cash flows. (5 marks)

Total 25 marks

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University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

Question 3

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

Total 25 marks

Question 4:

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

Income Statement for the years ending.

	<u>2022</u>	<u>2023</u>
	<u>(£000)</u>	<u>(£000)</u>
Revenue	430	330
Cost of Sales	<u>(248)</u>	<u>(190)</u>
Gross Profit	199	140
Expenses	<u>(154)</u>	<u>(120)</u>
Operating Profit	45	20
Interest Payable	<u>(12)</u>	<u>(10)</u>
Profit Before Tax	33	10
Tax	<u>(15)</u>	<u>(7)</u>
Profit After tax	<u>18</u>	<u>3</u>

Question 4 continued over the page

PLEASE TURN THE PAGE

University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

Question 4 Continued

Statement of Financial Position as at year end.

	<u>2022</u>	<u>2023</u>
	<u>(£000)</u>	<u>(£000)</u>
Non-current assets	405	500
Current assets:		
Inventory	45	20
Receivables	65	40
Cash	<u>7</u>	<u>10</u>
<u>Total assets</u>	<u>522</u>	<u>570</u>
Capital & Liabilities		
Capital	250	350
Retained earnings	100	63
Non-current liabilities	100	70
Current liabilities	<u>72</u>	<u>87</u>
Total Capital & Liabilities	<u>522</u>	<u>570</u>

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 your workings.

Question 4 continued over the page

PLEASE TURN THE PAGE

University of Bolton
Greater Manchester Business School
BSc (Hons) Business Management
Semester 1 Examination 2023/24
Financial Management and Decision Making
Module No. BMP5006

Question 4 Continued

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

(8 marks)

(c) Appraise the potential impact of Denton Company adopting a Balanced Scorecard.

(5 marks)

Total 25 marks

END OF QUESTION PAPER

TABLES PROVIDED ON FOLLOWING PAGES

PLEASE TURN THE PAGE

PAST EXAMINATION

University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

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

PLEASE TURN THE PAGE

University of Bolton
 Greater Manchester Business School
 BSc (Hons) Business Management
 Semester 1 Examination 2023/24
 Financial Management and Decision Making
 Module No. BMP5006

BMP5006 -Table of Ratios

- Gross profit margin: $\frac{\text{Gross Profit}}{\text{Revenue}} \times 100 = x \%$
- Operating profit margin : $\frac{\text{Operating Profit}}{\text{Revenue}} \times 100 = x \%$
- Net profit margin: Profit for the year / Revenue x 100 = x%
- Expenses to sales : $\frac{\text{Expenses}}{\text{Revenue}} \times 100 = x \%$
- Interest cover : $\frac{\text{Operating Profit}}{\text{Interest Payable}} = x \text{ Times}$
- Return on Capital Employed : $\frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100 = x \%$

where Capital Employed = Total Assets – Current Liabilities

- Current Ratio : $\frac{\text{Current Assets}}{\text{Current Liabilities}} = x : 1$
- Quick Ratio : $\frac{\text{Current Assets}-\text{Inventory}}{\text{Current Liabilities}} = x : 1$
- Gearing ratio: $\frac{\text{Long term Debt}}{\text{Long term debt+ Equity (share capital+reserves)}} \times 100 = x \%$
- Non-current asset turnover : $\frac{\text{Revenue}}{\text{Non-current Assets}} = x \text{ times}$
- Inventory days : $\frac{\text{Inventory}}{\text{Cost of sales}} \times 365 = x \text{ days}$
- Receivables days : $\frac{\text{Trade Receivables}}{\text{Revenue}} \times 365 = x \text{ days}$
- Payable days : $\frac{\text{Trade Payables}}{\text{Cost of sales}} \times 365 = x \text{ days}$

END OF TABLES

END OF EXAM