[OCD023]

UNIVERSITY OF BOLTON

OFF CAMPUS DIVISION
WESTERN INTERNATIONAL COLLEGE

BA(HONS) ACCOUNTANCY

SEMESTER 1 EXAMINATIONS 2021/2022

MANAGEMENT ACCOUNTING AND DECISION MAKING

MODULE NO: ACC5002

Date: Monday 10th January 2022 **Time: 13:00 – 16:00**

INSTRUCTIONS TO CANDIDATES:

There are SIX questions on this paper. Answer FOUR questions as follows:

Section A – Answer TWO questions

Section B – Answer TWO questions

This is a closed book examination.

You must hand in this exam paper with your answer booklet.

Use of calculators is allowed.

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

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BA(Hons) Accountancy
Semester 1 Examination 2021/2022
Management Accounting and Decision Making
Module No. ACC5002

<u>SECTION A</u> – Answer <u>ANY TWO</u> questions

<u>Question 1</u>

Indiana Ltd is considering to invest in the following 2 projects and is unsure which project it should undertake.

It has been presented with two start-up investment opportunities and the initial investments are as follows:
Project Amici £1,550,000
Project Boden £1,850,000

Both projects have a lifespan of 5 years.

The residual value at the end of Project Boden only will be £70,000.

The cost of capital is 9%.

The expected net cash flows of each of the projects are as follows:

	Project Amici	Project Boden
	£	£
Year 1	570,500	442,500
Year 2	280,700	335,200
Year 3	220,000	345,000
Year 4	301,000	315,000
Year 5	325,000	480,000

Required:

(a) Calculate the following for each of the projects Amici and Boden:
- Net Present Value (NPV)
- Accounting Rate of Return (ARR) using initial cost
- Payback Period

(12 Marks)

Question 1 continues over the page…
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Question 1 continued…

(b) Based on your calculations, advise Indiana Ltd which project to accept, with reasons.

(3 Marks)

(c) Calculate the Internal Rate of Return (IRR) for Project Amici only.

(5 Marks)

(d) Critically evaluate Net Present Value and Accounting Rate of Return as a method of investment appraisal techniques.

(5 Marks)

Total 25 Marks

Question 2

Tyran Ltd manufactures one type of product and everything is sold as soon as it is produced. There is no opening or closing inventories and work in progress is not relevant for this scenario. The company operates a standard costing system, and an analysis of variances is conducted every month.

Below are the standard and actual costs of the product.

Standard costs:		£
Selling Price per unit		45.00
Direct Materials per unit	1 kilo at £3.50 per kilo	3.50
Direct labour per unit	1.5 hours at £8.00 per hour	12.00
Variable Overheads	2 hours at £5.50 per hour	11.00
Fixed overhead Costs		115,000

The standard cost was based on an output of 15,000 units.

Question 2 continues over the page…
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Question 2 continued….

Actual Costs:

The actual output was 16,050 units and was sold for £738,300.

15,500 kgs of material were used at a total cost of £54,075.

Direct labour paid for amounted to 21,500 hours at a cost of £178,950.

Variable overheads amounted to £155,000.

Fixed overhead cost was £120,200.

Required:

(a) What are the purposes of standard costing?

(3 Marks)

(b) Calculate the budgeted contribution per unit.

(2 Marks)

(c) Calculate the following variances:

i. Sales Margin Price Variance

ii. Sales Margin Volume Variance

iii. Material Price Variance

iv. Material Usage Variance

v. Labour Rate Variance

vi. Labour Efficiency Variance

vii. Variable Overhead Expenditure Variance

viii. Fixed Overhead Expenditure Variance

(20 Marks)

(Total 25 Marks)

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Question 3
The Management of Anderson Plc are concerned that they may not be manufacturing the correct product mix in one of their divisions.

There has been issues with the machines therefore output in this division is limited at the moment.

The company manufactures five products in this division using the same machines.

The following estimates have been made in respect of the forthcoming quarter.

Product	**Bond**	**Jin**	**Can**	**Fon**	**Hax**
	£ per unit	**£ per unit**	**£ per unit**	**£ per unit**	**£ per unit**
Selling Price	115	120	125	140	145
Variable Material Cost	35	38	40	45	50
Variable Labour Cost	20	22	24	25	28
Variable overheads	12	15	17	20	21
	Hours	**Hours**	**Hours**	**Hours**	**Hours**
Time per unit required on Machines	12	15	4	10	9
Forecast sales/production	800 units	750 units	950 units	1000 units	980 units

The maximum machine capacity available in the next quarter is 40,000 hours.

Fixed overhead costs are expected to be £25,000.

Question 3 continues over the page…
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Question 3 continued…

Required

(a) Explain what is meant by a limiting factor using an example.

(2 Marks)

(b) Calculate the optimal product mix given the constraint of the limiting factor, machine hours.

(13 Marks)

(c) Show the forecast profit for the division using your chosen product mix.

(5 Marks)

(d) Critically evaluate the application of constraint theory in the modern Management Accounting practices.

(5 Marks)

(Total Marks 25)

END OF SECTION A

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SECTION B – Answer ANY TWO questions

Question 4

(a) Evaluate the use and purpose of the balanced scorecard to the modern day business looking at how each perspective can be used in practice to evaluate company performance. You should also evaluate the benefits and criticisms of the balanced scorecard.

(15 Marks)

(b) Business Process Re-engineering (BPR) can be used to restructure an organisation in order to improve performance management.

i. Explain the term Business Process Re-engineering (BPR).

(2 Marks)

ii. Discuss the advantages and criticisms of BPR.

(8 Marks)

(Total 25 Marks)

Question 5

Transfer pricing policies are considered important in decentralised organisations, where autonomy is thought to bring important benefits.

(a) Evaluate the term 'Transfer Pricing' and its objectives.

(5 Marks)

(b) Analyse the characteristics of a good transfer price policy.

(8 Marks)

(c) Distinguish between the four methods of Transfer Pricing.

(12 Marks)

Total 25 Marks

Question 6

(a) Critically evaluate the reasons why there is a shift from traditional costing methods of allocating overheads to a more activity-based costing approach.
(10 Marks)

A budget is a tool that managers use to plan and control the use of scarce resources.

(b) What are the purposes for budgeting?
(5 Marks)

(c) Critically evaluate three types of budgets.
(10 Marks)

(Total 25 Marks)

END OF QUESTIONS

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Formula

Internal Rate or Return(IRR)

$$IRR = r_a + \frac{NPV_a}{NPV_a - NPV_b}(r_b - r_a)$$

r_a = lower discount rate chosen
r_b = higher discount rate chosen
N_a = NPV at r_a
N_b = NPV at r_b

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Present Value Table

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

Where r = discount rate

n = number of periods until payment

Periods *Discount rates (r)*

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

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

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