UNIVERSITY OF BOLTON

RAK ACADEMIC CENTRE

BA (HONS) ACCOUNTANCY

SEMESTER 1 EXAMINATION 2019/2020

MANAGEMENT ACCOUNTING AND DECISION MAKING

MODULE NO: ACC5002

Date: Thursday 16th January 2020 **Time: 4.00pm – 7.00pm**

INSTRUCTIONS TO CANDIDATES:

There are SIX questions in this examination 4 questions to be answered as follows:

Answer TWO questions in Section A
Answer TWO question in Section B

This is a closed book examination.

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

(Discount tables and Formulae are attached at the back of this question paper)

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Section A – Answer 2 Questions from this section

Question 1

Wood n'Ash manufactures high quality display units. The following information relates to the business' four different brands.

Product	**Blue** £	**Pink** £	**Purple** £	**White** £
Selling Price	352	378	520	760
Variable Materials Cost	108	156	210	300
Variable Labour Cost	190	174	270	340
Labour Hours per unit	18	12	20	24
Material required per unit	40kg	110kg	74kg	90kg
Maximum sales demand (units)	1,500	2,500	1,800	2,000

It requires a high level of specialist work and only 115,000 skilled hours are available.

Required:

(a) Explain what is meant by a limiting factor (include an example)
(5 marks)

(b) How can Wood n'Ash overcome their limiting factor, provide two examples of how a company may overcome it.
(5 marks)

(c) Calculate the optimal product mix given the constraint of the limiting factor, labour hours.
(10 marks)

(d) Show the forecast profit for the division using your chosen product mix.
(5 marks)

Total 25 marks

Question 2

Olympus Ltd is considering investing in the following projects.

They have been presented with two start-up investment opportunities. Project Titan costing £1,500,000 and Project Apollo costing £1,000,000. Both will have a lifespan of 5 years. The expected cash inflows for the projects are as follows:-

Years	Project Titan (£)	Project Apollo (£)
1	337,500	400,000
2	425,000	200,000
3	425,000	100,000
4	425,000	100,000
5	400,000	250,000

Required:

(a) Calculate the Accounting Rate of Return, Payback Period and Net Present Value for **Project Titan and Apollo.**

Note: Use a Discount factor of 10%. .

(11 Marks)

(b) Based on your calculation which project would you recommend Olympus to accept.

(2 marks)

(c) Calculate the Internal Rate of Return for **Project Titan**

(6 Marks)

(d) Olympus Ltd needs some advice on investment appraisal techniques. Critically evaluate Payback and Net Present Value techniques.

(6 Marks)

Total 25 marks

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Question 3

The following information relates to Dev's Empire plc.'s first quarter of trading.

Standard Data		**£**
Selling price per unit		80
Sales Units	20,000	
Direct materials per unit	2kg @ £1.90 per kg	3.8
Direct labour per unit	4 hours @ £10 per hour	40
Variable overheads	20,000 units @ £9 per unit	180,000
Fixed overheads costs		200,000
Actual Results		**£**
Sales units	21,000	
Production units	21,000	
Selling price per unit		87.5
Direct materials (total)	42,000 kg	88,200
Direct labour (total)	94,500 hours	1,039,500
Variable overhead cost		199,500
Fixed overhead cost		210,000

Required:

(a) Calculate the budgeted contribution per unit.

(5 marks)

(b) Calculate the following variances:

i. Sales Price
ii. Sales Volume
iii. Labour rate
iv. Labour Efficiency
v. Material Price
vi. Material Usage
vii. Variable Overhead Expenditure
viii. Fixed Overhead Expenditure

(20 marks)

Total 25 Marks

Please turn the page

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Section B – Answer 2 Questions from this section

Question 4

You have been employed as a trainee business advisor and your manager has asked you to critically evaluate the balance scorecard. They would like you to include in your evaluation its main purpose and how each of the perspectives can be used to evaluate a company's performance.

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Total 25 marks

Question 5

Drury (2004, p. 885) believes that "no single transfer price is likely to perfectly serve all of the [objectives of transfer prices]".

(a) Define Transfer pricing

(5 marks)

(b) Evaluate the characteristics of a good transfer price policy

(10 marks)

(c) Distinguish between two methods of Transfer Pricing

(10 marks)

Total 25 marks

Question 6

"A budget is a quantitative plan prepared for a specific time period"

(Kaplan 2019)

Critically evaluate the different types of budgets.

Total 25 marks

END OF QUESTIONS

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Formula Sheet

Internal Rate of Return

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

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

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$
Where r = discount rate and n = number of periods until payment

Periods (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
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

Formula Sheet continued over the page

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Formula Sheet continued

(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
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	0.594	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

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