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Oxford Cambridge and RSA

Thursday 14 June 2018 – Afternoon

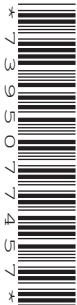
A2 GCE ACCOUNTING

F014/01/RB Management Accounting

RESOURCE BOOKLET

To be given to candidate at the start of the examination

Duration: 2 hours



INSTRUCTIONS TO CANDIDATES

- The information required to answer Questions 1–4 is contained within this Resource Booklet.

INFORMATION FOR CANDIDATES

- The quality of your written communication will be taken into account in marking your answers to the two sub-questions marked with an asterisk (*).
- In one of these questions, the focus will be on your ability to present numerical information legibly and in an appropriate accounting format. In the other, you will be assessed on the legibility and style of writing, the clarity and coherence of your arguments and the accuracy of your spelling, punctuation and grammar.
- This document consists of **8** pages. Any blank pages are indicated.

INSTRUCTION TO EXAMS OFFICER/INVIGILATOR

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- 1 Two years ago, Vetch Ltd conducted market research at a cost of £25 000 to investigate the potential market for new products. The company is now considering two new products, only one of which will be undertaken. The following information is available.

- (i) Capital cost 1 January 2019:

Product 1	£120 000
Product 2	£110 000

- (ii) Residual value 31 December 2022:

Product 1	£12 000
Product 2	£5 000

- (iii) Estimated selling price £ per unit:

	Product 1	Product 2
2019	10.90	8.60
2020	11.10	8.70
2021	11.20	9.00
2022	11.30	9.20

- (iv) Estimated variable cost £ per unit:

	Product 1	Product 2
2019	5.70	4.40
2020	5.30	4.30
2021	5.60	4.50
2022	5.40	4.50

- (v) Estimated fixed costs, £ per annum, excluding depreciation:

	Product 1	Product 2
2019	31 000	27 400
2020	34 600	29 000
2021	38 800	30 000
2022	41 100	31 100

- (vi) Estimated demand in units:

	Product 1	Product 2
2019	15 000	17 000
2020	17 000	20 000
2021	18 000	16 000
2022	19 000	13 000

- (vii) The cost of capital is 10%.

Extract from present value tables of £1 @10%:

Year 1	0.909
Year 2	0.826
Year 3	0.751
Year 4	0.683

- (viii) With the exception of capital cost, all costs and revenues are received on 31 December each year.

REQUIRED

- (a) Calculate the net cash flow **each** year for **each** product. [6]
- (b) (i) Calculate the payback (to two decimal places) for **each** product. Assume even cash flows throughout each year. [4]
- (ii) Calculate the net present value for **each** product. Assume all cash flows take place at the end of each year. [12]
- (c)* Evaluate **each** of the capital appraisal methods stated in part (b). [10]
- (d) Explain the reasons for how the original market research should be treated in the capital appraisal process. [3]

- 2 Jack Ltd started in business on 1 January 2015 and the following information is available for its first three years in business.

	2015	2016	2017
Total fixed costs (£)	172 000	180 000	182 000
Total direct materials (£)	192 000	192 000	195 000
Total direct labour (£)	138 000	142 000	144 000
Total variable overheads (£)	80 000	86 000	89 000
Selling price per unit (£)	45	47	46
Sales each year (units)	15 000	14 200	18 200
Production each year (units)	16 000	16 000	16 000

REQUIRED

- (a) Calculate the closing stock value for **each** of the three years under the FIFO basis of valuing issues, if the company used:
- the marginal costing approach to valuing stock
 - the absorption costing approach to valuing stock. [6]
- (b)* A statement showing the gross profit for **each** of the three years under the FIFO basis of valuing issues of stock, if the company used:
- the marginal costing approach to valuing stock
 - the absorption costing approach to valuing stock. [15]
- (c) Assess the production, sales and cost data over the three-year period. [9]
- (d) Discuss why companies are required to use absorption costing and not marginal costing when preparing published accounts. [6]

- 3 Gylfi Ltd currently manufactures a single product. Its sales and costs for the year ended 30 April 2018 were as follows.

Selling price £160 per unit
Sales in units 8200

Variable costs per unit:

Direct materials 10 kilos @ £3.20 per kilo
Direct labour £30
Variable overheads £20

Fixed costs £120 000 per annum

To improve profit for the year commencing 1 May 2018 the following changes are planned:

- The selling price to increase to £165 per unit.
- Units to be sold to increase by 550 units.
- Improve the quality of direct materials. This will result in a 5% reduction in the amount of material required to produce each unit, however price would then increase by £0.10 per kilo.
- Direct labour to increase by 3% per unit.
- Variable overheads to increase by £2.75 per unit.
- Fixed cost to increase by £20 000 per annum.

REQUIRED

(a) Using the data for the year commencing 1 May 2018, calculate:

- (i) the break-even in units and sales value [5]
- (ii) the profit for the year (show the contribution per unit in your calculations) [3]
- (iii) the margin of safety in units and as a percentage [3]
- (iv) the sales in units required to maintain the profit level of the year ended 30 April 2018 [6]

The company has spare capacity and is considering introducing an additional product. The product would be superior to the current product and this would add £8 per unit to the variable costs incurred during the year ended 30 April 2018. There would not be any other changes to the costs incurred during the year ended 30 April 2018.

- (b) Calculate the selling price that the company would need to charge for the additional product in order to achieve a 50% contribution to sales ratio. [3]
- (c) Assess the usefulness of the margin of safety to a company. [6]

4 Tosh Ltd has produced the following budgeted data for its next financial year:

Direct materials	£400 000
Direct labour	£200 000
Production overhead	£600 000
Labour hours	20 000 hours
Machine hours	24 000 hours
Output in units	150 units

For each job undertaken, general administration expenses of 20% are added to the total production costs to give a total cost to the company. The selling price to customers is based on a 25% net profit margin.

The cost sheet for job 1912 shows the following details:

Direct materials	£2 500
Direct labour	£1 300
Machine hours used	154 hours
Labour hours used	140 hours

REQUIRED

(a) Calculate overhead absorption rates by **each** of the following methods:

- percentage of direct materials
- percentage of direct labour
- percentage of prime cost
- per unit
- labour hour rate
- machine hour rate.

[6]

(b) Using the appropriate overhead absorption rates calculated in (a), calculate the selling price of job 1912, using **each** of the following methods:

- percentage of direct materials
- machine hour rate.

[5]

(c) Evaluate the suitability of **each** of the **two** methods in part (b) for absorbing overhead costs. [8]

(d) Distinguish between **allocation** and **apportionment** of overheads. Illustrate, with a suitable example in **each** case. [4]

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