



L4 Applied Management Accounting

Sample Assessment and Mark Scheme

Qualification Specification: AAT Professional Diploma in Accounting

SCQF Level 8 Diploma in Professional Accounting

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Notes for students and training providers

This is a Sample Assessment and Mark Scheme (SAMS) which is reflective of the question types, depth of content coverage, the level of demand, duration and mark allocation of tasks that will be in the live assessment.

Under each sub-task, you will see a reference to the unit specification, e.g. (1.4.1); this denotes the Learning Outcome, Topic Area and scope being covered in the sub-task, enabling you to identify which area of the unit specification is being assessed.

It is not designed to be used on its own to determine whether students are ready for the live assessment.

Assessment information

You have **3 hours** to complete this sample assessment.

- This assessment contains **8 tasks** and you should attempt to complete **every** task,
- Each task is independent. You will not need to refer to your answers to previous tasks.
- The total number of marks for this assessment is **140**.
- Read every task carefully to make sure you understand what is required.
- Where the date is relevant, it is given in the task data.
- Both minus signs and brackets can be used to indicate negative numbers **unless** task instructions state otherwise.
- You must use a full stop to indicate a decimal point. For example, write 100.57 **not** 100,57 or 10057.
- You may use a comma to indicate a number in the thousands, but you don't have to. For example, 10000 and 10,000 are both acceptable.

Task 1 (12 marks)

This task is about budgetary processes, responsibilities and uncertainties.

You are collecting budget information for the company for which you work.

(a) Identify who would be involved in each of the following tasks.

Oversee budget preparation	✓
Budget Committee	
Budget Accountant	
Senior Manager	
Budget Accountant and Senior Manager	

Assist in budget preparation	✓
Budget Committee	
Budget Accountant	
Senior Manager	
Budget Accountant and Senior Manager	

(2 marks) (1.2.1, 1.2.2, 1.2.3, 1.6.2)

(b) Identify the individual or group that you will need to contact for information about each of the following tasks.

Draft the direct materials budget	✓
Production Manager	
Purchases Manager	
Production Manager and Purchases Manager	
Budget Committee	

Agree planning assumptions	✓
Production Manager	
Purchases Manager	
Production Manager and Purchases Manager	
Budget Committee	

(2 marks) (1.1.4, 1.2.5, 1.6.2)

(c) Identify the most appropriate treatment for each of the following costs.

Office stationery	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

Production labour – sick pay	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

Production labour – basic pay	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

Stores department	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

(4 marks) (1.2.6, 1.2.7)

(d) Complete the following statements about budgets.

Detailed budgets prepared by Production Managers are referred to as **GAP 1** budgets and usually have a **GAP 2** effect on the **GAP 3**. They are brought together to form the **GAP 4** budget.

Gap 1	✓
top-down	
zero-based	
bottom-up	
incremental	

Gap 2	✓
demotivating	
limiting	
motivating	
confirmed	

Gap 3	✓
production plan	
budget accountant	
budget holder	
company	

Gap 4	✓
capital	
master	
company	
production	

(4 marks) (1.1.1, 1.1.2, 1.1.3, 1.6.1, 1.6.2, 1.6.3)

Task 2 (24 marks)

This task is about budget preparation, evaluation and revision.

Oakfair Ltd is preparing its resource budgets for the next period and has the following data.

Production budget	Units
Opening inventory of finished goods	13,100
Production	174,000
Sub-total	187,100
Sales	170,000
Closing inventory of finished goods	17,100

Notes

Materials

- Each unit produced requires 0.6 kilograms (kg) of materials.
- Closing inventory will be valued at the budgeted purchase price per kg.

Labour

- Each item takes five minutes to produce.
- 82 staff each work 120 basic hours in the period.
- Overtime is paid at 50% above the basic hourly rate.

Production overhead

- Variable overhead is based on total labour hours.

(a) Complete the two working schedules using the information from the production budget and notes above. Enter all numbers as positive values.

'AutoSum' indicates that the value(s) will be calculated for you automatically in the on-screen assessment.

Working schedule – Materials	Kg	£
Opening inventory	4,400	5,280
Purchases @ £1.25 per kg		
Used in production		
Closing inventory	3,700	4,625

Working schedule – Labour	Hours	£
Basic time @ £9.00 per hour		
Overtime		
Total	AutoSum	AutoSum

(8 marks) (1.3.5)

Oakfair Ltd is looking to complete the sales budget for the next year.

(b) Identify FOUR factors that could limit the total sales in the sales budget for the next year.

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(4 marks) (1.4.1)

Oakfair Ltd have now completed the sales budget which shows a 15% volume increase in sales for the next year.

Oakfair Ltd has produced the following draft overheads budget together with the budgetary assumptions used and the comparative figures for the previous year.

Item	Budget £	Previous Period £	Assumptions
Factory rent	55,000	50,000	Due to the increased sales for next period an additional 10% of factory space will need to be rented
Factory insurance	8,000	8,000	No increase in premium anticipated from insurance company
Administration	48,000	42,000	Half of all administration costs are fixed with the remainder variable
Sales and marketing	80,000	63,000	A new marketing manager is to be employed at a cost of £27,000 per year.
Distribution costs	29,000	22,000	Distribution costs are variable
Head office costs	105,000	102,000	Head office will relocate during the year to a larger site.

(c) Evaluate the draft overheads budget taking into consideration the assumptions used in its preparation.

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(12 marks) (6 marks 1.7.1; 6 marks 1.7.4)

Task 3 (18 marks)

This task is about flexed budgets and standard costing.

Tubs Ltd manufacture plant pots from recycled plastic, which they sell to garden centres in the UK. You have been provided with the following activity data:

Activity data	Plant pots produced	Materials used per plant pot kg	Cost per kg £
Budget	600,000	0.020	2.00
Actual	1,000,000	0.019	1.82

Discussions with the Production Manager identified the following issues:

- the overall increase in availability of materials in the marketplace had recently reduced recycled plastic prices by 20%. It is not known whether this will continue
- The materials had been sourced from a different supplier who promised better quality, but at a slightly higher price. The usual supplier of these materials will resume deliveries next period.
- Their major customers had requested a decrease in the standard pot size by 5%, which was applied to all items produced.

The company operates a standard marginal costing system. No inventories of raw materials or finished goods are held.

(a) Prepare the direct material cost statement from the information provided above. Enter your answers to the nearest whole number.

'AutoSum' indicates that the value(s) will be calculated for you automatically in the on-screen assessment.

Direct materials cost statement	£
Standard material cost of production	
Variiances	Fav/(Adv)
Materials price	
Materials usage	
Materials cost	AutoSum

(6 marks) (2.2.2, 2.2.8, 2.2.9)

(b) Based on the discussion with the Production Manager, for EACH of the statements below:

- (i) identify whether the statement impacts upon standard price or standard usage**
- (ii) calculate the revised standard price or standard usage based on the statement.**

The overall increase in availability of materials had reduced material prices by 20%.

Impact on standards	✓
Price	
Usage	
None	

Revised standards	✓
Cannot be calculated due to insufficient information	
£1.60 per kg	
£1.80 per kg	
£1.82 per kg	
0.019kg	
0.018kg	

The materials had been sourced from a different supplier who promised better quality, but at a slightly higher price. The usual supplier of these materials will resume deliveries next period.

Impact on standards	✓
Price	
Usage	
None	

Revised standards	✓
Cannot be calculated due to insufficient information	
£1.60 per kg	
£1.80 per kg	
£1.82 per kg	
0.019kg	
0.018kg	

Their major customers had requested a decrease in the standard pot size by 5%, which was applied to all items produced.

Impact on standards	✓
Price	
Usage	
None	

Revised standards	✓
Cannot be calculated due to insufficient information	
£1.60 per kg	
£1.80per kg	
£1.82 per kg	
0.019kg	
0.018kg	

(6 marks) (2.2.1, 2.2.3, 2.2.4, 2.2.8)

(c) Complete the following statements about whether or not Tubs Ltd should change the standards.

The price standard ___GAP 1___be changed as this will have a ___GAP 2___impact. If this standard is changed it could have ___GAP 3___effect on the budget holder.

Gap 1	✓
should	
should not	

Gap 2	✓
short-term	
medium-term	
long-term	

Gap 3	✓
a demotivating	
an influencing	
a motivating	

The usage standard ___**GAP 4**___be changed as this will have a ___**GAP 5**___impact. If this standard is changed it could have ___**GAP 6**___effect on the budget holder.

Gap 4	✓
should	
should not	

Gap 5	✓
short-term	
medium-term	
long-term	

Gap 6	✓
a demotivating	
an influencing	
a motivating	

(6 marks) (2.2.1, 2.2.6, 2.2.7)

Task 4 (20 marks)

This task is about costing systems to aid control.

Roasted Ltd is a medium-sized coffee manufacturing company that produces two products, ground coffee and coffee beans. The company has invested in new integrated technologies throughout all sections of the business, from the use of robotics in the production line, through to reporting software in the accounting function. A traditional absorption costing method is currently used and it has been suggested that activity based costing maybe more appropriate following the introduction of improved technologies throughout the company. The following information regarding the company has been provided:

	Ground coffee	Coffee beans
Direct materials per unit	£10	£11
Direct labour hours per unit @ £10 per hour	4	6
Forecast production and sales (units)	40,000	30,000
Number of inspections	680	120
IT support (hours)	20,000	4,000

The budgeted cost for the two overhead activities is as follows:

- inspections: £400,000
- IT support: £960,000.

(a) Calculate the direct costs and production overheads per unit for ground coffee and coffee beans using the traditional direct labour hours absorption method.

'AutoSum' indicates that the value(s) will be calculated for you automatically in the on-screen assessment.

	Ground coffee £	Coffee beans £
Direct costs		
Production overheads		
Total cost	AutoSum	AutoSum

(4 marks) (2.3.6)

(d) Explain the benefits that the activity based costing system may have over the traditional absorption costing system.

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(3 marks) (2.3.2)

(e) Explain how the use of technology can provide benefit to Roasted Ltd's operational control processes.

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(3 marks) (2.6.1, 2.6.2)

Task 5 (20 marks)

This task is about decision making techniques.

Pillow Ltd is reviewing its production schedule for the three pillows they make: soft, medium and firm. Pillow Ltd need to determine the production plan.

You have been provided with the following information for the three products:

Per unit	Soft £	Medium £	Firm £
Selling price	70	60	65
Direct material @ £4 per kg	20	24	28
Direct labour @ £7 per hour	21	14	17.50
Variable overhead	8	10	5
Fixed Overhead	15	10	12.50
Total cost	64	58	63
Price to buy-in	55	54	56

Due to recent labour shortages, the total number of labour hours available for the coming year is 15,000 hours. Your supplier has also informed you that they are only able to supply you with 40,000 kgs of materials.

(a) Calculate the total number of hours required to satisfy current demand.

'AutoSum' indicates that the value(s) will be calculated for you automatically in the on-screen assessment.

Product	Demand units	Total Labour hours
Soft	2,000	
Medium	1,750	
Firm	2,500	
Total		AutoSum

(3 marks) (3.2.4)

(b) Calculate the total amount of materials required to satisfy current demand.

'AutoSum' indicates that the value(s) will be calculated for you automatically in the on-screen assessment.

Product	Demand units	Total Materials kg
Soft	2,000	
Medium	1,750	
Firm	2,500	
Total		AutoSum

(3 marks) (3.2.4)

- (c) (i) Calculate the contribution per unit and contribution per scarce resource for each of the products. Enter your answers to two decimal places.**
(ii) Rank the optimal production from 1 – 3, based on your calculations in (i).

	Soft	Medium	Firm
Contribution per unit (£)			
Contribution per scarce resource (£)			
Ranking of optimal production (1 – 3)			

(8 marks) (3.3.1, 3.3.2, 3.3.4, 3.3.5)

- (d) (i) Calculate the additional cost per scarce resource for each of the products if Pillow Ltd decide to buy-in the product. Enter your answers to two decimal places.**
(ii) Identify which product Pillow Ltd should buy-in if resources are scarce.

	Soft	Medium	Firm
Cost per scarce resource (£)			
Product to buy-in (✓)			

(4 marks) (3.2.2, 3.2.3, 3.2.4, 3.3.1)

(e) Identify whether the following statements about decision making are true or false.

Statement	True ✓	False ✓
Using contribution to determine optimum production is useful for long-term decision making.		
A long-term plan is implemented for the year ahead using an annual budget.		

(2 marks) (3.1.1, 3.3.2, 3.3.3)

Task 6 (14 marks)

This task is about long-term decision making.

You manage the accounts of a local farmer who is trying to improve his income streams. The farmer is considering turning one of the fields, which is currently used for grazing land, into a car park as it is next to the local hospital. He has asked for your advice on whether this would be appropriate. Details of the costs and income are as follows:

		£
Surface	Installation (useful life of 4 years)	120,000
	Annual maintenance	5,000
Ticket machine	Purchase	22,000
	Annual maintenance	7,280
	Residual value after 4 years	3,000
Income	Car park charges per annum	68,250

The farmer has a required cost of capital of 10% and the discount factor at this rate is:

Year 0	1.000
Year 1	0.909
Year 2	0.826
Year 3	0.751
Year 4	0.683
Year 5	0.621

- (a) Calculate the net present value for the car park. Use minus signs to show if any net cash flow is negative. Enter the net cash flow and present value of net cash flow to the nearest whole pound (£).

Year	Net cash flow £	Discount factor	Present value of net cash flow £
Net Present Value			

(6 marks) (3.5.2, 3.6.1, 3.6.3)

- (b) Calculate the accounting rate of return for the car park. Enter the Accounting Rate of Return to two decimal places.

Item	Amount
Depreciation of assets per year (£)	
Average accounting profit per year (£)	
Accounting Rate of Return (%) (Average accounting profit/initial investment x 100)	

(4 marks) (3.6.1, 3.6.5)

- (c) Identify whether the project should be undertaken, using the Accounting Rate of Return as the basis for the decision.

	✓
No – maintain grazing land	
Yes – build car park	

(1 mark) (3.5.1, 3.6.1, 3.6.7)

(d) Identify which investment appraisal technique(s) each of the following statements relate to.

Recognises the time value of money	✓
Accounting rate of return and net present value.	
Accounting rate of return, internal rate of return and net present value.	
Internal rate of return.	
Internal rate of return and net present value.	

Assumes linearity	✓
Accounting rate of return and net present value.	
Accounting rate of return, internal rate of return and net present value.	
Internal rate of return.	
Internal rate of return and net present value.	

Includes all available financial data	✓
Accounting rate of return and net present value.	
Accounting rate of return, internal rate of return and net present value.	
Internal rate of return.	
Internal rate of return and net present value.	

(3 marks) (3.5.1, 3.6.1, 3.6.2)

Task 7 (20 marks)

This task is about analysing business performance.

Billy's Coaches operates a park and ride service during the working week. The service operates for five days a week for 52 weeks a year and uses a 36-seater coach. In 20X8, the charge was £5 per day per car for parking and transport, but the charge is now based on the number of passengers. The number of car park spaces and journeys per day have remained the same. The results for the last two years are summarised as follows:

	20X8 £	20X9 £
Turnover	288,000	340,000
Variable costs	236,000	262,000
Gross profit	52,000	78,000
Expenses	36,000	40,000
Operating profit	16,000	38,000
Net assets	134,000	114,400
Fares	£5 per car	
Average number of passengers per day	580	655
Total number of customer complaints	60	99

(a) Calculate the following performance indicators for 20X9. Enter your answers to two decimal places.

Ratio	20X8	20X9
Gross profit margin (%)	18.05	
Variable costs as a % of turnover	81.94	
Operating profit margin (%)	5.50	
Expenses as a % of turnover	12.50	
Return on capital employed (%)	11.94	
Asset turnover (times)	2.15	
Average fare per passenger (£)	1.91	
Increase in customer complaints (%)		

(8 marks) (6 marks 4.1.6; 2 marks 4.2.6)

Task 8 (12 marks)

This task is about divisional performance and forecasting.

You are preparing the forecasts for a retail company and have been provided with the following information:

	Sales trend 20X8 £	Seasonal Variation
October – December	1,680,000	+14%
January – March	1,740,000	-8%
April – June	1,815,000	+9%
July – September	1,875,000	-15%

(a) Calculate the sales forecast for 20X8 using the information above.

	Sales forecast £
October – December	
January – March	
April – June	
July – September	

(4 marks) (4.4.7)

Due to circumstances outside the company’s control, they have moved to online sales only as stores have been closed temporarily.

(b) Complete the following statements about forecasting.

Long-term plans are often based on **GAP 1** to find trends, which are more accurate in the **GAP 2**.

If the shop closure is short-term then this represents a **GAP 3** variation which will make the forecast less **GAP 4**.

Gap 1	✓
internet searches	
extrapolation	
analysis	

Gap 2	✓
long-term	
medium-term	
short-term	

Gap 3	✓
reliable	
seasonal	
random	

Gap 4	✓
reliable	
seasonal	
random	

(4 marks) (4.4.3)

In order to support increased online delivery, an increased number of delivery vehicles will be required. Delivery costs are seen to vary in a linear manner and can be expressed using the regression equation $y = a + bx$, where:

a= fixed costs

b = variable cost per unit

x = number of deliveries made.

The total delivery costs for 1,000 deliveries and 8,000 deliveries are £6,000 and £20,000 respectively.

(c) Calculate the fixed and variable cost elements.

	£
a. Fixed costs	
b. Variable costs per delivery	

(4 marks) (4.4.2, 4.4.6)



L4 Applied Management Accounting

Model answers and mark scheme

Qualification Specification: Level 4 Diploma in Accounting

SCQF Level 8 Diploma in Professional Accounting

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Task 1 (12 marks)

This task is about budgetary processes, responsibilities and uncertainties.

(a) Identify who would be involved in the following tasks.

Oversee budget preparation	✓
Budget Committee	✓
Budget Accountant	
Senior Manager	
Budget Accountant and Senior Manager	

Assist in budget preparation	✓
Budget Committee	
Budget Accountant	
Senior Manager	
Budget Accountant and Senior Manager	✓

(2 marks)

(b) Identify the individual or group that you will need to contact for information about each of the following tasks.

Draft the direct materials budget	✓
Production Manager	
Purchases Manager	
Production Manager and Purchases Manager	✓
Budget Committee	

Agree planning assumptions	✓
Production Manager	
Purchases Manager	
Production Manager and Purchases Manager	
Budget Committee	✓

(2 marks)

(c) Identify the most appropriate treatment for each of the following costs.

Office stationery	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	✓
Charge to production based on a labour overhead rate	

Production labour – sick pay	✓
Charge to product directly	
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	✓

Production labour – basic pay	✓
Charge to product directly	✓
Allocate to production overheads	
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

Stores department	✓
Charge to product directly	
Allocate to production overheads	✓
Allocate to administrative overheads	
Charge to production based on a labour overhead rate	

(4 marks)

(d) Complete the following statements about budgets.

Detailed budgets prepared by Production Managers are referred to as ___**Gap 1**___ budgets and usually have a ___**Gap 2**___ effect on the ___**Gap 3**___. They are brought together to form the ___**Gap 4**___ budget.

Gap 1	✓
top-down	
zero-based	
bottom-up	✓
incremental	

Gap 2	✓
demotivating	
limiting	
motivating	✓
confirmed	

Gap 3	✓
production plan	
budget accountant	
budget holder	✓
company	

Gap 4	✓
capital	
master	✓
company	
production	

(4 marks)

Task 2 (24 marks)

This task is about budget preparation, evaluation and revision.

- (a) Complete the two working schedules using the information from the production budget and notes above. Enter all numbers as positive values.

Working schedule – Materials	Kg	£
Opening inventory	4,400	5,280
Purchases @ £1.25 per kg	103,700 (1)	129,625 (1)
Used in production	104,400 (1)	130,280 (1)
Closing inventory	3,700	4,625

Working schedule – Labour	Hours	£
Basic time @ £9.00 per hour	9,840 (1)	88,560 (1)
Overtime	4,660 (1)	62,910 (1)
Total	14,500	151,470

(8 marks)

- (b) Identify FOUR factors that could limit the total sales in the sales budget for the next year.

Q	Answer
(b)	<p>1 x mark for reference to the following points; max 4 marks</p> <ul style="list-style-type: none"> • There are a variety of factors that could limit overall sales demand including: <ul style="list-style-type: none"> • production capacity • availability of raw materials • availability of labour • market share • financial constraints <p>Other appropriate points may be awarded marks.</p>

(4 marks)

- c) Evaluate the draft overheads budget taking into consideration the assumptions used in its preparation.

Q	Answer
(c)	<p>Indicative content</p> <p>Factory Rent</p> <ul style="list-style-type: none"> • Budget has been increased by 10% for the additional space • Will space be available at the same rent to our existing agreement • Will exactly 10% additional space be available, may have to take on a larger space than required • Will there be additional payments required in the first year <p>Factory Insurance</p> <ul style="list-style-type: none"> • No increase incorporated • If we take on more space will insurance not increase • Are we assuming that a better deal can be negotiated to offset the increased space <p>Administration</p> <ul style="list-style-type: none"> • Increase of £6,000 on last year • Would expect variable element to increase to £21,000 x 1.15 = £24150 • Are we therefore budgeting for the fixed cost element to increase significantly <p>Sales & Marketing</p> <ul style="list-style-type: none"> • Significant increase on last year of 27% • Increase however does not cover cost of new manager • Is the business scaling back its marketing activities • A reduction seems strange given the 15% increase budgeted for sales <p>Distribution costs</p> <ul style="list-style-type: none"> • An increase of 32% on last year • Assumption is that distribution is a variable cost so would expect a 15% change • Have the costs of distribution increased significantly <p>Head office costs</p> <ul style="list-style-type: none"> • A small increase on last year • Would expect significant costs to be incurred on relocation • Unlikely to be directly linked to sales volumes but increase still seems quite small <p>Other valid points can gain credit</p>
Marks	Descriptor
0	No response worthy of credit.
1 – 4	Only one or two of the overhead costs are evaluated. To gain the highest mark in the band each overhead must have at least two relevant comments.
5 – 8	Three or four overhead costs are evaluated. To gain the highest mark in the band each overhead must have at least two relevant comments.

9 – 12	Five or six overhead costs are evaluated. To gain the highest mark in the band each overhead must have at least two relevant comments.
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(12 marks)

Task 3 (18 marks)

This task is about flexed budgets and standard costing.

- (a) Prepare the direct material cost statement from the information provided above. Enter your answers to the nearest whole number.

Direct materials cost statement	£
Standard material cost of production	40,000 (2)
Variances	£ Fav / (Adv)
Materials price	3,420 (2)
Materials usage	2,000 (2)
Materials cost	5,420

(6 marks)

- (b) Based on the discussion with the production manager, for EACH of the statements below:

- (i) Identify whether the statement impacts upon standard price or standard usage.
(ii) Calculate the revised standard price or standard usage based on the statement.

The overall increase in availability of materials had reduced material prices by 20%.

Impact on standards	✓
Price	✓
Usage	
None	

Revised standards	✓
Cannot be calculated due to insufficient information	
£1.60 per kg	✓
£1.80 per kg	
£1.82 per kg	
0.019kg	
0.018kg	

The materials had been sourced from a different supplier who promised better quality, but at a slightly higher price. The usual supplier of these materials will resume deliveries next period.

Impact on standards	✓
Price	
Usage	
None	✓

Revised standards	✓
Cannot be calculated due to insufficient information	✓
£1.60 per kg	
£1.80 per kg	
£1.82 per kg	
0.019kg	
0.018kg	

Their major customers had requested a decrease in the standard pot size by 5%, which was applied to all items produced.

Impact on standards	✓
Price	
Usage	✓
None	

Revised standards	✓
Cannot be calculated due to insufficient information	
£1.60 per kg	
£1.80 per kg	
£1.82 per kg	
0.019kg	✓
0.018kg	

(6 marks)

(c) Complete the following statements about whether or not Tubs Ltd should change the standards.

The price standard ___**GAP 1**___ be changed as this will have a ___**GAP 2**___ impact. If this standard is changed it could have ___**GAP 3**___ effect on the budget holder.

Gap 1	✓
should	
should not	✓

Gap 2	✓
short-term	✓
medium-term	
long-term	

Gap 3	✓
a demotivating	✓
an influencing	
a motivating	

The usage standard ___**GAP 4**___ be changed as this will have a ___**GAP 5**___ impact. If this standard is changed it could have ___**GAP 6**___ effect on the budget holder.

Gap 4	✓
should	✓
should not	

Gap 5	✓
short-term	
medium-term	
long-term	✓

Gap 6	✓
a demotivating	
an influencing	
a motivating	✓

(6 marks)

Task 4 (20 marks)

This task is about costing systems to aid control.

- (a) Calculate the direct costs and production overheads per unit for ground coffee and coffee beans using the traditional direct labour hours absorption method.

	Ground coffee £	Coffee beans £
Direct costs	50 (1)	71 (1)
Production overheads	16 (1)	24 (1)
Total cost	66	95

(4 marks)

- (b) Calculate the inspections and IT support costs cost per unit for ground coffee and coffee beans using the activity-based costing method. Enter your answers to two decimal places.

	Ground coffee £	Coffee beans £
Direct costs	50.00	71.00
Inspections	8.50 (1)	2.00 (1)
IT support	20.00 (1)	5.33 (1)
Total cost	78.50	78.33

(4 marks)

- (c) Discuss the differences between the product costs calculated using the traditional absorption costing method and activity based costing method.

Q	Answer
(c)	<p>Own figure rule to apply to discussion.</p> <p>Indicative content may include:</p> <ul style="list-style-type: none"> • Under the traditional direct costing labour hours absorption method, the coffee beans product is clearly more expensive than the ground coffee. • The direct costs account for the greatest amount of this difference and are more than double the difference in the production overheads. • When production was more labour intensive, this method was seen as a more appropriate method. It was assumed that the more time spent on producing a product, the more labour hours were used so they should be charged with a greater share of the production overheads. • The increase in technology in the production line would lead to a decrease in labour and so the overheads will relate to machine hours rather than labour hours. • Under ABC, the two products costs are almost exactly the same. • The cost drivers used relate to the increased use of technology in the production line. <p>Other appropriate points may be awarded marks.</p>
Marks	Descriptor
0	No response worthy of credit.
1-2	The response is limited with little or no demonstration of understanding of the differences between the two costing methods. Some attempt at explaining the costs using one method may be included.
3-4	The response discusses both costing methods with enough supporting detail to demonstrate a good understanding of how each method has affected the product costs.
5-6	<p>The response presents a full discussion of the differences between the product costs, demonstrating a thorough understanding of how the two different costing methods affect the outcome.</p> <p>High marking responses may also make relevant points regarding the impact of technology.</p>

(6 marks)

- (d) Explain the benefits that the activity based costing system may have over the traditional absorption costing system.

Q	Answer
(d)	<p>1 mark for each relevant point; max 3 marks.</p> <ul style="list-style-type: none"> • ABC can be seen to provide a more accurate cost per unit. (1) • ABC provides insight into how activities drive costs and so recognises that costs are not just related to production and sales volume. (1) • As technology increases, overheads often become a greater proportion of total costs and ABC can help managers understand how costs can be controlled. (1) <p>Other appropriate points may be awarded marks.</p>

(3 marks)

- (e) Explain how the use of technology can provide benefit to Roasted Ltd's operational control processes.

Q	Answer
(e)	<p>1 mark for each relevant point; max 3 marks.</p> <ul style="list-style-type: none"> • The use of technologies can help a business speed up many processes. (1) • If technology is used to replace tasks which were time consuming, this allows managers to focus on key areas. (1) • Effective technology can therefore improve overall efficiencies (1) in the business. • Specifically for Roasted Ltd, ABC can be aided by the improved technologies (1) which have been implemented which will enable the information required to calculate cost drivers to be obtained more effectively (1). <p>Other appropriate points may be awarded marks.</p>

(3 marks)

Task 5 (20 marks)

This task is about short term decision making.

(a) Calculate the total number of hours required to satisfy current demand.

Product	Demand units	Total Labour hours
Soft	2,000	6,000 (1)
Medium	1,750	3,500 (1)
Firm	2,500	6,250 (1)
Total		15,750

(3 marks)

(b) Calculate the total amount of materials required to satisfy current demand.

Product	Demand units	Total Materials kg
Soft	2,000	10,000 (1)
Medium	1,750	10,500 (1)
Firm	2,500	17,500 (1)
Total		38,000

(3 marks)

- (c) (i) Calculate the contribution per unit and contribution per scarce resource for each of the products. Enter your answers to two decimal places.
(ii) Rank the optimal production from 1 – 3, based on your calculations in (i).

	Soft	Medium	Firm	Marks
Contribution per unit (£)	21.00	12.00	14.50	3
Contribution per scarce resource (£)	7.00	6.00	5.80	3
Ranking of optimal production (1 – 3)	1	2	3	2

(8 marks)

- (d) (i) Calculate the additional cost per scarce resource if Pillow Ltd decide to buy-in the product. Enter your answers to two decimal places.
(ii) Identify which product Pillow Ltd should buy-in if resources are scarce.

	Soft	Medium	Firm
Cost per scarce resource (£)	2.00 (1)	3.00 (1)	2.20 (1)
Product to buy-in (✓)	✓ (1)		

(4 marks)

(e) Identify whether the following statements about decision making are true or false.

Statement	True ✓	False ✓
Using contribution to determine optimum production is useful for long-term decision making.		✓
A long-term plan is implemented for the year ahead using an annual budget.	✓	

(2 marks)

Task 6 (14 marks)

- (a) Calculate the net present value for the car park. Enter the cash flow and present value of cash flow to the nearest whole pound (£).

Year	Cash flow £	Discount factor	Present value of cash flow £
0	(142,000)	1.000	(142,000)
1	55,970	0.909	50,877
2	55,970	0.826	46,231
3	55,970	0.751	42,033
4	58,970	0.683	40,277
Net Present Value			37,418

Marking breakdown:

- 1 mark for correct year
- 1 mark for initial cashflow of (£142,000)
- 1 mark for annual cashflow of £55,970
- 1 mark for final cashflow of £3,000
- 1 mark for correct PV use
- 1 mark for correct PV cashflow calculation

(6 marks)

(b) Calculate the accounting rate of return for the car park. Enter the accounting rate of return to two decimal places.

Item	Amount
Depreciation of assets per year (£)	34,750 (1)
Average accounting profit per year (£)	21,220 (1)
Accounting Rate of Return (%) (Average accounting profit / initial investment)	14.94 (2)

(4 marks)

(c) Identify whether the project should be undertaken.

	✓	
No – maintain grazing land		OFR allowed based on answer to ARR in (b)
Yes – build car park	✓	

(1 mark)

(d) Identify which investment appraisal technique(s) each of the following statements relate to.

Recognises the time value of money	✓
Accounting rate of return and net present value	
Accounting rate of return, internal rate of return and net present value	
Internal rate of return	
Internal rate of return and net present value	✓

Assumes linearity	✓
Accounting rate of return and net present value	
Accounting rate of return, internal rate of return and net present value	
Internal rate of return	✓
Internal rate of return and net present value	

Includes all available financial data	✓
Accounting rate of return and net present value	
Accounting rate of return, internal rate of return and net present value	✓
Internal rate of return	
Internal rate of return and net present value	

(3 marks)

Task 7 (20 marks)

- (a) Calculate the following performance indicators for 20X9. Enter your answers to two decimal places.

Ratio	20X8	20X9
Gross profit margin (%)	18.05	22.94 (1)
Variable costs as a % of turnover	81.94	77.06 (1)
Operating profit margin (%)	5.50	11.18 (1)
Expenses as a % of turnover	12.50	11.76 (1)
Return on capital employed (%)	11.94	33.22 (1)
Asset turnover (times)	2.15	2.97 (1)
Average fare per passenger (£)	1.91	2.00 (1)
Increase in customer complaints (%)		65.00 (1)

(8 marks 4.1, 4.2)

(b) Analyse the performance of Billy's Coaches over the two years.

Q	Answer
(b)	<p>As the analysis will be partly based on calculations in (a), own figure rule to apply to discussion.</p> <p>Indicative content may include:</p> <ul style="list-style-type: none"> • All financial ratios have improved over the year. • The change in the way the charges are applied to customers using the service has led to increased revenue. • Improvement in gross profit margin due to both improvement in revenue per passenger and control of variable costs. • The increase in operating profit margin also highlights the improvement in in the control of expenses. • Return on capital employed (ROCE) has improved substantially but this may be due to a reduction in the value of the assets. • As the company is involved in transport, the improvement in ROCE may be due to the NBV of the assets reducing as they depreciate. • As the assets (coaches) are utilised more, replacements may be required earlier than anticipated. • The average fare per passenger has increased (although only slightly) this might lead to decreased customer satisfaction for customers who car shared. • There is a large increase in customer complaints which may be due to increased passenger numbers at peak times. • The limited number of car park spaces may impact upon continued expansion of passenger numbers. • The reduction in fares may attract additional passengers but this could mean an increase in expenses as additional journeys may be required during peak periods when traffic may be slower, so leading to an increase in fuel costs. Also, additional capacity on coaches may also result in increased fuel usage. <p>Other appropriate points may be awarded marks.</p>
Marks	Descriptor
0	No response worthy of credit.
1 - 4	The answer is not fully explained or only states ratios are better or worse. Additional data is not considered.
5 - 8	As part of the analysis, an attempt is made to explain reasons why some of the ratios have changed, showing understanding of what the performance indicator means. No consideration is given to non-financial data To achieve top marks available in this band, a thorough attempt is made to analyse all of the financial ratios.
9 - 12	An answer is provided that demonstrates a clear understanding of the impact changes in ratios have on organisational performance. Consideration should be given to both financial and non-financial data. Recognition is shown of how performance indicators interrelate with each other. To achieve top marks in this band, students should show some consideration of potential problems that may impact upon the indicator and / or future requirements that could be taken to improve the indicator.

(12 marks)

Task 8 (12 marks)

This task is about divisional performance and forecasting.

(a) Calculate the sales forecast for 20X8 using the information above.

	Sales forecast £
October – December	1,915,200 (1)
January – March	1,600,800 (1)
April – June	1,978,350 (1)
July – September	1,593,750 (1)

(4 marks)

(b) Complete the following statements about forecasting.

Long-term plans are often based on ___**GAP 1**___ to find trends, which are more accurate in the ___**GAP 2**___. If the shop closure is short-term then this represents a ___**GAP 3**___ variation which will make the forecast less ___**GAP 4**___.

Gap 1	✓
internet searches	
extrapolation	✓
analysis	

Gap 2	✓
long-term	
medium-term	
short-term	✓

Gap 3	✓
reliable	
seasonal	
random	✓

Gap 4	✓
reliable	✓
seasonal	
random	

(4 marks)

(c) Calculate the fixed and variable cost elements.

	£
a. Fixed costs	4,000 (2)
b. Variable costs per delivery	2 (2)

(4 mar)

