Study Support

Financial Performance (FNPF)

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Study Support materials comprise **non live** assessments that were created for the **2003/2006 standards** and **do not** resemble assessments designed for the AAT Accountancy Qualification (launched July 2010).
There are some topic similarities between the 2003/2006 standards and the AAT Accounting Qualification (launched July 2010).

Practice assessments, guidance and **standards** for the AAT Accountancy Qualification (launched July 2010) can be found on the AAT website.

The Association of Accounting Technicians

Contents

Support book Part 1 Unit 8: Contributing to the Management of Performance and Enhancement of Value (PEV)
2003/2006 standards exam; June 2009 sitting

Support book Part 2 Unit 8: Contributing to the Management of Performance and Enhancement of Value (PEV)
2003/2006 standards exam; December 2009 sitting

Support Book Part 3 Unit 33 Management Accounting (MAC)
2003/2006 standards exam; June 2009 sitting

Support Book Part 4 Unit 33 Management Accounting (MAC)
2003/2006 standards exam; December 2009 sitting

Support book Part 1

Questions

Source:
2003/2006 standards exam; June 2009 sitting

Contents:
Unit 8: Contributing to the Management of Performance and Enhancement of Value (PEV)
AAT Level 4 Technician Pathway (2003/2006 standards)

Monday 15th June 2009

Time allowed - 3 hours plus 15 minutes' reading time

This exam paper is in TWO sections.

You must show competence in BOTH sections. So, try to complete EVERY task in BOTH sections.

Section 1 contains 3 tasks and Section 2 contains 3 tasks.

You should spend about 100 minutes on Section 1 and about 80 minutes on Section 2.

You should include all your workings and essential calculations in your answers.

Both sections are based on the information below about the SoapBox company.

Section 1

You should spend about 100 minutes on this section. Against each task is the recommended time for that task, but please note that these times are guidelines only.

Data

SoapBox produces soap and shampoo. It has several divisions including the Shampoo Division. The Shampoo Division produces a concentrated shampoo which it packages in plastic bottles.

You work as an Accounting Technician, reporting to the Finance Director.

The Shampoo Division operates a standard cost system in which:

- purchases of material are recorded at standard cost
- direct labour costs are variable
- production overheads are fixed and absorbed on a unit basis

The budgeted activity and actual results for the month of May 2009 are as follows:

	Budget		**Actual**	
Production (bottles)		10,000		11,000
Liquid shampoo	2,500 litres	£15,000	2,800 litres	£15,400
Plastic bottles	10,000 units	£2,000	11,300 units	£2,034
Direct labour	300 hours	£3,300	350 hours	£3,325
Fixed overheads		£7,000		£7,500
Total cost		£27,300		£28,259

Task 1.1 (70 minutes)

(a) Calculate the following for May:

i) standard cost per litre of shampoo
ii) actual cost per litre of shampoo
iii) standard labour hours per bottle of shampoo
iv) standard labour hours for actual production
v) budgeted cost per bottle of shampoo

(b) Calculate the following variances for May, indicating whether favourable or adverse:

(i) direct materials price variance for plastic bottles
(ii) direct materials usage variance for plastic bottles
(iii) direct labour rate variance
(iv) direct labour efficiency variance
(v) fixed overhead expenditure variance
(vi) fixed overhead volume variance

Additional data

A colleague has calculated the following variances for you:

- direct materials (shampoo) price variance of £1,400 favourable
- direct materials (shampoo) usage variance of £300 adverse

(c) Using the variances your colleague has calculated and those you have calculated in task 1.1(b), prepare an operating statement for May which reconciles the standard cost of total actual production with the actual cost of total actual production.

Additional data

The Production Director has reviewed the variances and has given you the following information.

- The shampoo was of lower quality and this resulted in the machines needing to be cleaned more frequently.
- A machine broke down because it became blocked with shampoo resulting in damage to bottles and unproductive time for labour.

(d) Using the information provided by the Production Director, draft a report for the Finance Director explaining possible reasons for the following variances:

(i) direct materials (shampoo) price
(ii) direct materials (shampoo) usage
(iii) direct labour rate
(iv) direct labour efficiency

Data

The Soap Division, which produces soap bars, operates a standard costing system in which:

- Soap material is purchased at a cost of £1,200 per tonne (1,000 kgs).
- Plastic packaging is purchased in square metres at a cost of £1.50 per square metre.
- There are 10,000 square centimetres in a square metre.
- Direct material costs and direct labour costs are variable.
- Production overheads are fixed.

The standard cost card for the coming month is being prepared and you have been given the following information.

- 100 grams of soap is used per bar.
- 200 square centimetres of plastic packaging is used per bar.
- Labour required to produce 10,000 bars of output is 40 hours.
- Labour cost is £10 per hour.
- Fixed running costs of the machine are £150,000 per month.
- Budgeted production is 100,000 bars per month.
- Fixed production overheads are absorbed on a unit basis.

Task 1.2 **(15 minutes)**

Prepare a standard cost card for the production of 10,000 bars of soap.

Additional data

The industry maintains a price index for soap. The index for May 2009 was 105 and the actual price per tonne was £1,200. The forecast index for the three months ending November 2009 is shown below.

Month	September	October	November
Underlying trend in index	120	125	130
Seasonal variation in index	+6	-6	+3
Seasonally adjusted Index	126	119	133

Task 1.3 **(15 minutes)**

(a) Calculate the expected cost of one tonne of soap for **each of the three months.**

(b) The company is able to secure a forward contract price for 100 tonnes of soap per month for the three months at a price of £1,500 per tonne. Calculate whether the contract would result in a lower price.

Section 2

You should spend about 80 minutes on this section. Against each task is the recommended time for that task, but please note that these times are guidelines only.

Data

Ufall is another division of SoapBox. Ufall has developed a skin treatment which claims to slow the ageing process. The product competes with a dozen other companies. Klineec is a major competitor and market leader with over 60% of the market. You have been given the following information about Ufall and Klineec for the year ended 31 May 2009.

Profit and loss account	**Ufall**	**Klineec**
	£000	£000
Turnover	9,000	44,000
Cost of production		
Direct (raw) materials	2,400	6,600
Direct labour	1,500	4,400
Fixed production overheads	1,200	6,000
Total cost of sales	5,100	17,000
Gross profit	**3,900**	**27,000**
Selling and distribution costs	1,000	2,000
Administration costs	750	1,500
Advertising costs	500	20,000
Net profit	**1,650**	**3,500**

Other information		**Ufall**	**Klineec**
Number of units sold (000)	Units	1,200	4,400
Net assets	(£000)	10,000	17,000
Fixed assets	(£000)	4,500	11,000

Task 2.1 **(50 minutes)**

(a) Calculate the following performance indicators for Ufall and Klineec:

(i) selling price per unit
(ii) material cost per unit
(iii) labour cost per unit
(iv) fixed production overheads per unit
(v) gross profit margin
(vi) net profit margin
(vii) return on net assets
(viii) fixed asset turnover

(b) Draft a report for the Finance Director covering the following:

(i) an explanation of why the gross profit margins are different, and which refers to the following:
- sales price
- sales volume
- materials
- labour
- fixed costs

(ii) an explanation of why the net profit margins are different
(iii) an explanation of why the returns on net assets are different

Data

Ufall has been considering how it can be more environmentally friendly and the scientists have developed a new product to replace the anti-ageing cream. The new product is a solid bar and takes up less than 10% of the volume and weight of the existing product.

You have been given the following information.

- Current full production cost of the anti-ageing cream is £4.25.
- Material cost of the new product will be £0.50 less per unit than the current cream.
- Selling price will be increased from £7.50 to £8.50.
- Selling and distribution costs will reduce from £1,000,000 to £400,000.
- Volume of sales is expected to be 1.2 million.
- Additional investment in assets will be £3 million.
- Other costs remain the same.

Task 2.2 (10 minutes)

(a) Calculate the total annual increase in profit that the company will make.

(b) Calculate the return on the additional investment.

Data

SoapBox will be replacing some machines in the next year and needs to decide whether to purchase or lease the machines. Each machine will cost £500,000 if purchased or £125,000 per year on a five-year lease.

The discount factors you will need for task 2.3 (a) and (b) are shown below.

Year	Discount factor 5%	Year	Discount factor 5%
0	1.00	3	0.864
1	0.952	4	0.823
2	0.907	5	0.784

Task 2.3 **(20 minutes)**

(a) Calculate the discounted lifecycle cost of purchasing the machine based upon the following:
- **purchase price of £500,000**
- **annual running costs of £40,000 for the next five years, paid annually in arrears**
- **a residual value of £200,000 at the end of the five years**

(b) Calculate the discounted lifecycle cost of leasing the machine for five years based upon the total annual costs of £125,000 paid annually in advance.

(c) Recommend whether the machine should be purchased or leased based only on your calculations.

(d) Briefly state TWO other considerations.

Model Answers

Note:
The model answers may, in parts, be longer than would be expected of candidates in the exam. The fuller version is given for teaching purposes.

Section 1

Task 1.1

(a)

(i) Standard cost per litre of shampoo
£15,000/2,500 = £6 per litre

(ii) Actual cost per litre of shampoo
£15,400/2,800 = £5.50 per litre

(iii) Standard labour hours per bottle of shampoo
300/10,000 = 0.03 hours or 1.8 minutes

(iv) Standard labour hours for actual production
11,000 x 0.03hours = 330 hours

(v) Budgeted cost per bottle of shampoo
£27,300/10,000 = £2.73

(b)

(vii) Direct materials price variance for plastic bottles

Standard cost per bottle = £2,000/10,000 = £0.20
Actual cost per bottle = £2,034/11,000 = £0.18
Total number of bottles purchased = 11,300
therefore variance = 11,300 x £0.02 = £226 favourable

or (£0.20 - £0.18) x 11,300 = £226 favourable

or (£0.20 x 11,300) = £2,260
less (£0.18 x 11,300) = £2,034
= £226 fav

(viii) Direct materials usage variance for plastic bottles

standard cost per bottle = £2,000/10,000 = £0.20
standard usage of bottles for actual output = 11,000 x 1 = 11,000
total number of bottles purchased = 11,300
therefore variance = (11,300 – 11,000) x £0.2 = £60 adverse

or £0.20 x (11,300 – 11,000) = £60 adverse

or (£0.20 x 11,300) = £2,260
less (£0.20 x 11,000) = £2,200
= £60 adv

(ix) Direct labour rate variance

standard labour rate per hour = £3,300/300 = £11
actual labour rate per hour = £3,325/350 = £9.50
total number of hours used = 350
therefore variance = (£11 – 9.50)x 350 = £525 fav

or 350 x (£11 - £9.50) = £525 fav

or (£11 x 350) = £3,850
less (£9.50 x 350) = £3,325
= £525 fav

(x) Direct labour efficiency variance

standard labour rate per hour = £3,300/300 = £11
standard labour hours for actual output = 11,000 x 0.03 = 330
total number of hours used = 350
therefore variance = £11x(330 – 350) = £220 Adverse

or £11 x (330 – 350) = £220 Adv

or (£11 x 350) = £3,850
less (£11 x 330) = £3,630
= £220 adv

(xi) Fixed overhead expenditure variance

Actual fixed overhead expenditure = £7,500
Budgeted fixed overhead expenditure = £7,000
therefore variance = £7,500 - £7,000 = £500 Adv

(xii) Fixed overhead volume variance

Actual volume of output = 11,000
Budgeted volume of output = 10,000
Budgeted overhead absorption rate = £0.70
therefore variance = (11,000 – 10,000)x £0.70 = £700 fav

or £0.70 x (11,000 – 10,000) = £700 fav

or (£0.70 x 11,000) = £7,700
less (£0.70 x 10,000) = £7,000
= £700 fav

(c)

Budgeted/Standard cost for actual production	**11,000**	**x £2.73**	**£30,030**
Variances	**Favourable**	**Adverse**	
Direct materials (shampoo) price	£1,400		
Direct materials (shampoo) usage		£300	
Direct materials (bottles) price	£226		
Direct materials (bottles) usage		£60	
Direct labour rate	£525		
Direct labour efficiency		£220	
Fixed overhead expenditure		£500	

Fixed overhead volume	£700		
Total variance	£2,851	£1,080	**£1,771**
Actual cost of actual production			**£28,259**

(d)

To:	**Production Director**	**Subject:**	**Reason for variances**
From:	**AAT student**	**Date:**	**15 June 2009**

(i) Direct materials (shampoo) price variance
The direct materials shampoo price variance is £1,400 favourable. This appears to be **due to the purchase of lower quality shampoo** which has **resulted in the adverse usage variance** of £300.

(ii) Direct materials (shampoo) usage variance
The direct materials usage variance was £300 adverse which may **be due to the lower quality material** causing the **machine to break down and wasting material.**

(iii) Direct labour rate variance
The direct labour rate variance was £525 favourable meaning that a **lower rate was paid than expected.** This may have been due to a **lower skilled level of labour**.

(iv) Direct labour efficiency variance
The direct labour efficiency variance was £220 adverse. This may be due to the poor quality material or it may have been due to a lower skilled labour force.

Task 1.2

Standard cost card for 10,000 bars		**Quantity**	**Unit price**	**Total cost**
Soap	tonnes	1	£1,200	£1,200
Packaging	square metres	200	£1.50	£300
Direct labour	hours	40	£10	£400
Fixed production overheads	bars	10,000	£1.50	£15,000
Standard cost				£16,900

Task 1.3

(a) Calculate the expected cost of one tonne of soap for each of the three months.

September	= £1,200 x 126/105	£1,440
October	= £1,200 x 119/105	£1,360

November	= £1,200 x 133/105	£1,520

(b) The company is able to secure a forward contract price for 100 tonnes of soap per month for the three months at a price of £1,500 per tonne. Calculate whether the contract would result in a lower price.

Cost = £1,500 x 100 = £150,000
A forward contract would result in a total price of £450,000 if they entered the contract.
If the contract was not taken the total cost would be £144,000 + £136,000 + £152,000 = £432,000. The contract is not financially beneficial.

Section 2

Task 2.1

(a)

	Ufall	Klineec
Selling price per unit	7.5	10
Material cost per unit	2	1.5
Labour cost per unit	1.25	1
Fixed cost per unit	1.00	1.36
Gross profit margin	43%	61%
Net profit margin	18%	8%
Return on net assets	17%	21%
Fixed asset turnover	2	4

(b)

To: **Finance Director** **Subject:** **Various**
From: **AAT student** **Date:** **17 June 2009**

(i) Gross profit margin

The gross profit margin for Ufall is 43%. Klineec achieves almost a 50% higher margin of 61%. There are 4 main components of this difference: sales, materials, labour and overhead cost per unit.

- Sales price is £7.5 for Ufall and £10 for Klineec. Clearly a higher sales price will increase the margin.
- Sales volume is 1,200 for Ufall compared to 4,400 for Klineec. The sales volume will normally improve the margin as the fixed elements of the cost are absorbed over more units (the average fixed cost per unit is lower).
- The material cost per unit is lower for Klineec again improving the margin.
- The labour cost per unit is lower for Klineec improving the margin.
- The fixed cost per unit is £1 for Ufall and £1.36 for Klineec. This would reduce the margin.

(ii) Operating profit margin

- The operating profit margin is 18% for Ufall and 8% for Klineec. The reason for the difference is due to the advertising costs. Klineec spends £20 million per year on advertising costs which is probably why it can charge a higher price and also why it sells more volume.

(iii) Return on net assets

- The return on net assets for Ufall is 17% whereas Klineec is 21%. The return on net assets is determined by the relationship between net profit and net assets.
- The net profit is only 8% for Klineec; however, the absolute amount is £3.5 million which in comparison to the net assets of £17 million gives a higher return than Ufall.
- Ufall has a net profit of £1.65 million with net assets of £10 million. Therefore the main reason that the RONA is higher for Klineec is that it achieves a higher profit for every £ of net assets.
- Other reasons include using assets more efficiently or obtaining economies of scale with regard to the assets capacity or off balance sheet leased assets.

Task 2.2

(c) Calculate the total annual increase in profit that the company will make.

	Units	Price/cost	Total
Additional revenue	1,200,000	£1	1,200,000
Savings on materials	1,200,000	0.5	-600,000
Reduction in selling and distribution costs			-600,000
Additional annual profit			2,400,000

(d) Calculate the return on the additional investment.

Additional investment/additional assets = £2,400,000/£3,000,000 = 80%

Task 2.3

(a)

Year	0	1	2	3	4	5
Purchase price/ running cost/ residual value	£500,000	£40,000	£40,000	£40,000	£40,000	-£160,000
Discount factor	1	0.952	0.907	0.864	0.823	0.784
Present value	£500,000	£38,080	£36,280	£34,560	£32,920	-£125,440
NPC	£516,400					

(b)

Year	0	1	2	3	4
Lease costs	£125,000	£125,000	£125,000	£125,000	£125,000
Discount factor	1	0.952	0.907	0.864	0.823
Present value	£125,000	£119,000	£113,375	£108,000	£102,875
NPC	£568,250				

(c)

Investing in the new machine saves £51,850 and is therefore financially beneficial.

(d)

- Does the company have sufficient cash to fund the initial investment of £500,000?
- Is there an opportunity to invest the £500,000 in another area which will return a higher amount?
- What is the risk to the residual value/running costs?
- Could the machine still be used after the 5 years are up?

Chief Assessor's report

NVQ/SVQ in Accounting
Level 4
Contributing to the Management of Performance and the Enhancement of Value (PEV)
2003 Standards

June 2009

General comments

Many candidates demonstrated an excellent or good level of knowledge and understanding. These candidates should be congratulated as many scored near perfect marks on both sections of the exam. The majority were well prepared for core elements but sometimes ill prepared for the peripheral elements. This was disappointing, especially as these elements have been outlined in previous Chief Assessor's reports, at Unit 8 masterclasses, at the AAT conference, and within the management accounting support booklet. They have also been examined in recent sittings. Clearly some students and possibly centres are still not consulting these documents or attending relevant seminars.

Generally, computational areas were very well answered by the majority of candidates. However, this is possibly due to rote learning as opposed to deep understanding. This is evidenced by the poor commentary and application when answering the discursive tasks. Marks were often lost on the reports due to candidates not understanding the requirements of the task, which appears to be due to lack of careful reading or lack of understanding. Many weaker candidates did not appear to review previous papers. This was evidenced in the number of candidates who were not able to answer task 2.3 which was a very similar task to one in the December 2008 paper. Also many candidates are unable to understand a simple instruction and this was evidenced in task 2.2 where candidates were required to calculate the additional profit and return on the additional investment. Most candidates simply produced a full revised profit and loss account and a revised return on net assets (RONA).

Students should be reminded to keep their answers neat and clear and show all their workings. Many struggled to achieve marks because of untidy workings or complete lack of workings. Also candidates should not use red pen or write in the margin (other than the question number). Candidates need to practise basic mathematical skills and must read the requirements carefully. It is good practice to re-read the question after completion of the task to ensure that all requirements have been met.

Section 1

Task 1.1 - Overall parts (a), (b) and (c) were very well answered and many candidates achieved full (or very near full) marks. Part (d) was sometimes well answered and often poorly answered. The weaker candidate struggled with all parts.

Task 1.1 (a)
This task assessed candidates' competence in deriving basic costing information from data provided. It has been assessed in every exam and this will continue in the foreseeable future. Candidates may be presented with information in the form of a budgetary report, as in this exam; in the form of a standard cost card; or in the form of a schedule of information. In all cases the candidate needs to extract the relevant information to calculate the requirements.

Task 1.1 (b)

This asked candidates to calculate six variances. These have featured in virtually every previous exam and candidates were generally well prepared with many achieving completely correct answers. Candidates who were not able to correctly calculate the variances often demonstrated confusion and attempted to multiply or divide all the numbers in the question.

Common errors included the following:

- Calculating the direct materials usage variance as 260A (arrived at by comparing 2,260 with 2,000
- Labour efficiency calculated as 330 hours compared with 300 instead of 350
- Fixed overhead volume variance as £7,500 vs £7,700 to give £200F

Alsol, some students' calculations made it obvious that they had not been taught variances, did not revise sufficiently or had a complete lack of aptitude for calculations. Some provided calculations which used every number in the questions several times.

Task 1.1 (c)

This task required candidates to produce an operating statement. It was generally well answered with many scoring full marks. Very few candidates failed to produce a reconciliation. Some started with £27,300 instead of £30,030 but the vast majority of candidates now seem to realise what is being reconciled to what.

Task 1.1 (d)

This task required candidates to draft a report, using additional information from the Production Director, explaining the variances. This was the least well answered part of the task, but still seemed better than on previous occasions, as the majority of students did try to give some kind of explanation for the variances, rather than just state what they were. This time most candidates considered the additional information; however, many were unable to fully analyse the variances in conjunction with this information. Also many did not think about the link between the variances. Despite this, there were many excellent answers.

Task 1.2

This task required the preparation of a standard cost card. Very few candidates achieved full marks on what is a basic task. Many could not deal with the correct units and often their answer was out by a factor of 10, 100, 1,000 or even 1 million.

There seemed to be very variable efforts here, with much confusion over the units/quantities. It was not clear whether students ignored the requirement for a 10,000 cost card, or simply were unable to manipulate the data to get the correct quantities and costs. Many attempts were a mixture of 1 bar, 10,000 bars or 100,000 bars. Also disappointing was the failure of many students to show a full cost card with a breakdown of all the constituent elements. Students had most success with the costs for direct labour – this was the item most frequently answered correctly.

Task 1.3

This was also generally well answered and many candidates scored perfect marks. Some candidates had clearly not studied the topic and had no idea how to provide an answer.

One common problem in part (b) was that often candidates just stated that "the contract would not be cheaper", but no workings at all would be shown. While the candidate may easily be able to spot that the contract would not be cheaper, the question clearly states "calculate" so some form of workings are expected to get full marks.

Section 2

Task 2.1 (a)
As usual, the performance indicators were well done by students. The most common problem areas were RONA (although this seemed better than in previous exam sittings) where various combinations of net assets and turnover seemed to be used, and fixed asset turnover where the most common mistake was to divide fixed assets by turnover.

Task 2.1 (b)
Many students had clearly read previous Chief Assessor's reports and the recent articles in *Accounting Technician* magazine. However, some had not and could not produce good answers to this task. Many candidates did not read the question carefully and did not consider all the variables or apply their answer to the margins.

Task 2.2
This was poorly handled – relatively few students read the question properly and calculated the additional profit. The task clearly required candidates to calculate the total annual increase in profit and then the return on the additional investment. Some candidates achieved full marks in both parts but many simply produced a revised profit and loss account and did not calculate the additional profit. Also many did not calculate a return on the additional investment but a revised total RONA.

Task 2.3
This task was generally well answered with many candidates scoring full marks. However, there were many candidates who did not understand how to answer this task. This was disappointing on two counts, firstly the topic of DCF is fundamental to management accounting and is introduced in ECR and secondly, this topic was examined in December 2008.

It would be very difficult to say just how many different approaches (and answers) were given by weaker candidates. On the positive side a significant number achieved full (or very nearly) marks to this question and showed a complete understanding of the concepts. The corollary of this was that many seemed to have completely forgotten the concepts of DCF and/or could not apply this to the situation in the question. Students could not seem to distinguish between purchase costs and running costs, let alone what the impact of residual value meant. There were various combinations of discounting and inflating, often not totalled to achieve net present costs or discounted savings. Workings were also few and far between (as ever, those who achieved full marks showed clearly where their figures came from!) The conclusion/recommendations showed clearly that many had no idea what they were comparing.

Support book Part 2

Questions

Source:
2003/2006 standards exam; December 2009 sitting

Contents:
Unit 8: Contributing to the Management of Performance and Enhancement of Value (PEV)
AAT Level 4 Technician Pathway (2003/2006 standards)

Monday 30 November 2009 (morning)

Time allowed - 3 hours plus 15 minutes' reading time

This exam paper is in TWO sections.

You must show competence in BOTH sections. So, try to complete EVERY task in BOTH sections.

Section 1 contains 4 tasks and Section 2 contains 3 tasks.

You should include all your workings and essential calculations in your answers.

Both sections are based on the information below about Nesco.

Section 1

You should spend about 90 minutes on this section.

Against each task is the recommended time for that task, but please note that these times are guidelines only.

Data

Nesco manufactures and distributes coffee. One of its main products is Golden Grind, a coffee blended from Arabica and Robusta beans. Golden Grind is sold in 1 kilogram packs.

You work as an Accounting Technician reporting to the Finance Director.

The company operates an integrated standard cost system in which:

- purchases of materials are recorded at standard cost
- direct material costs are variable
- production overheads are fixed and absorbed on a unit basis
- production costs include labour costs for maintenance and setting up of the machines

The actual results for November are as follows:

		Actual
Production (1 kilogram packs)		9,500
Direct materials (Arabica beans)	4,000 kilograms	£12,800
Direct materials (Robusta beans)	6,000 kilograms	£8,400
Direct packaging materials (foil)	110 square metres	£550
Fixed production overheads		£7,500
Total cost		£29,250

The standard cost card for production of 1 kilogram of coffee is:

	Quantity	**Unit price**	**Total cost**
Product: 1 kilogram of Golden Grind			**£**
Direct materials (Arabica beans)	500 grams	£3 per kilogram	1.50
Direct materials (Robusta beans)	500 grams	£1.50 per kilogram	0.75
Direct packaging materials (foil)	0.01 square metres	£10 per square metre	0.10
Fixed production overheads			0.65
Standard cost			3.00

Task 1.1 (40 minutes)

(a) The spreadsheet showing the budgeted costs for November has been damaged and you need to recalculate the following information for a budgeted production of 10,000 one kilogram packs:

(i) standard quantity of Arabica beans required for production of 10,000 packs
(ii) standard quantity of Robusta beans required for production of 10,000 packs
(iii) standard quantity of foil for production of 10,000 packs
(iv) direct materials (Arabica beans) cost
(v) direct materials (Robusta beans) cost
(vi) direct packaging materials (foil) cost
(vii) fixed production overheads cost

(b) Calculate the following variances for November:

(xiii) direct material (Arabica) price variance
(xiv) direct material (Arabica) usage variance
(xv) direct material (Robusta) price variance
(xvi) direct material (Robusta) usage variance
(xvii) direct packaging material (foil) price variance
(xviii) direct packaging material (foil) usage variance

(c) Prepare an operating statement reconciling the actual material cost of producing 9,500 one kilogram packs of Golden Grind with the standard material cost of producing 9,500 one kilogram packs.

(d) Calculate the fixed overhead expenditure variance and the fixed overhead volume variance.

Additional data

You have been given the following information about Arabica and Robusta coffee beans.

a. Arabica beans are a higher quality and provide a richer flavour whereas Robusta beans are considered lower quality and tend to be bitter in taste. The cost of Arabica beans is set by the market and recently the price has risen sharply due to a poor harvest. The purchaser has to take the price quoted on the market. The quality of the beans was as expected.

b. A mixing machine broke down which led to more Robusta beans being added to the mix. The breakdown has been blamed on the loss of maintenance personnel due to a lower than market pay rise.

c. The price of Robusta beans is set by the market and the price has recently fallen due to a good harvest. The purchaser has to take the price quoted on the market. The quality of the beans was as expected.

d. In order to maintain the quality of the coffee blend, the percentage of Arabica beans should not fall below 45% of the weight of the blend.

Task 1.2 (20 minutes)

Using this information, prepare a report to the Production Director stating:

(a) possible reasons for the Arabica and Robusta variances you calculated in task 1.1 (b) above

(b) whether the company could have taken any action and if so what action could have been taken

(c) how the direct materials usage variances for Arabica beans and Robusta beans are linked.

Additional data

The following information has been gathered on the price of Robusta beans.

	Sept 09	Oct 09	Nov 09
Cost per 1,000 kg of beans	£1,200	£1,600	£1,500

An estimate of the seasonal variation in the price per month is given below.

	Sept 09	Oct 09	Nov 09
Seasonal variations	-£200	£100	-£100

Task 1.3 (15 minutes)

(a) Calculate the underlying cost per 1,000 kilograms for the period September to November 2009.

(b) Calculate the forecast cost per 1,000 kilograms of beans for the months of December 2009, January and February 2010. Use the following estimates of seasonal variation and assume that the trend in (a) above continues.

	Dec 09	Jan 10	Feb 10
Seasonal variations	£100	-£100	£150

(c) Using March 2009 as the base month, when the cost was £1 per kilogram, convert the cost per kilogram for December 2009, January and February 2010 to index numbers.

Additional data

The company has been developing an instant coffee mix which will be sold in jars. The coffee production engineer has gathered the following information for the labour:

- Under perfect conditions the direct labour will be able to produce 1,000 jars of coffee per hour.
- In a week-long trial under normal conditions the average production per labour hour was 800 jars.
- If there are a lot of machine breakdowns and disruptions then labour may only be able to produce 600 jars per hour over an average week.

The production engineer is recommending that the standard be set at 1,000 jars per hour.

Task 1.4 (15 minutes)

(a) Explain the type of standard that the production engineer is recommending and suggest any problems which may result from using this as a standard.

(b) What issues may arise if the standard is set at 600 jars per hour?

Section 2

You should spend about 90 minutes on this section.

Against each task is the recommended time for that task, but please note that these times are guidelines only.

Data

Nesco is developing a coffee machine and is considering two options.

Option 1 is a machine (called the Koffio) which uses ground coffee that is poured into the machine. Once the customer purchases the machine they could use any brand of coffee.

Option 2 is a machine (called the Supremio) which uses a foil capsule containing coffee.
These capsules will only be available from Nesco.
The advantages to the customer are that the machines are self-cleaning and create no mess and a precise amount of coffee is used each time, therefore there is no wastage.
The coffee also remains in perfect condition until it has been used.

The market research department has estimated that the price and demand characteristics for each machine will be as follows:

- The Koffio will sell 120,000 units each year if the price is set at £50.
- The Supremio will sell 40,000 units each year if the price is set at £100.

Forecast information for both machines is shown below.

Budgeted profit and loss account for the first 12 months of operation	**Koffio**	**Supremio**
Sales volume	120,000	40,000
	£	**£**
Sales price per unit	50	100
Total sales revenue	6,000,000	4,000,000
Direct materials	1,500,000	1,200,000
Direct labour cost	600,000	400,000
Fixed production overheads	1,800,000	1,200,000
Total cost of sales	3,900,000	2,800,000
Gross profit	2,100,000	1,200,000
Selling and distribution costs	600,000	240,000
Advertising costs	200,000	300,000
Administration costs	360,000	200,000
Net profit	940,000	460,000
Capital invested	3,500,000	2,400,000

Task 2.1 (40 minutes)

(a) Calculate the following performance indicators for both scenarios:

(ix) gross profit margin
(x) net profit margin
(xi) direct materials cost per unit
(xii) direct labour cost per unit
(xiii) fixed production overhead cost per unit
(xiv) return on capital invested

(b) Draft a report to the Finance Director which:

(ii) explains why the gross profit margin is different in each scenario

Note:
Your answer should refer to the following:
- sales price and sales volume
- materials, labour and fixed cost per unit

(iii) explains the return on capital invested

(iv) recommends, with reasons, which machine should be made, assuming Nesco can only launch one of the machines.

Additional data

The Finance Director has reviewed your report and provided the following comments.

"We have not taken account of the profit which will be received from the sale of the capsules. I have been given information about the expected demand for the capsules, the cost of producing the capsules, and the investment needed in equipment and stock."

Estimated sales of machines	40,000
Demand for capsules	10,400,000
Sales price per capsule	£0.30
Material cost per capsule	£0.08
Fixed production cost per capsule	£0.09
Distribution cost per capsule	£0.03
Capital investment	£2,000,000

- The assumption is that the 40,000 machines will be sold evenly throughout the year and that each customer will use 10 capsules per week.
- The capsules will be covered by a patent, which means that no other company will be able to sell them.
- The market research department feel that the weekly usage is realistic.
- The decision on when to launch the product has not yet been made.

Task 2.2 (40 minutes)

(a) Calculate the following information for the sale of 10,400,000 capsules:

(i) gross profit
(ii) net profit
(iii) gross profit margin
(iv) net profit margin
(v) return on capital invested

(b) Calculate the following information for the sale of the 40,000 Supremio machines and 10,400,000 capsules in total:

(i) gross profit
(ii) net profit
(iii) gross profit margin
(iv) net profit margin
(v) return on revised capital invested

(c) Write a report to the Finance Director which should:

(i) compare your findings to the results for (manufacturing) the Koffio machine
(ii) outline the main risks and rewards in going ahead with the Supremio machine and capsules
(iii) recommend, with reasons, whether to launch the Supremio or the Koffio.

Task 2.3 **(10 minutes)**

The Production Director has heard of the terms ‘target costing’ and ‘value analysis’’ and wonders whether these techniques can be used to aid future decisions.

The company is about to start a project for the design of a new coffee machine.

Give a brief explanation of each technique and state how it can be used when designing a new coffee machine.

Chief Assessor's report

NVQ/SVQ in Accounting
Level 4
Contributing to the Management of Performance and the Enhancement of Value (PEV)
2003 Standards

June 2009

General comments

Many candidates demonstrated an excellent or good level of knowledge and understanding. These candidates should be congratulated as many scored near perfect marks on both sections of the exam. The majority were well prepared for core elements but sometimes ill prepared for the peripheral elements. This was disappointing, especially as these elements have been outlined in previous Chief Assessor's reports, at Unit 8 masterclasses, at the AAT conference, and within the management accounting support booklet. They have also been examined in recent sittings. Clearly some students and possibly centres are still not consulting these documents or attending relevant seminars.

Generally, computational areas were very well answered by the majority of candidates. However, this is possibly due to rote learning as opposed to deep understanding. This is evidenced by the poor commentary and application when answering the discursive tasks. Marks were often lost on the reports due to candidates not understanding the requirements of the task, which appears to be due to lack of careful reading or lack of understanding. Many weaker candidates did not appear to review previous papers. This was evidenced in the number of candidates who were not able to answer task 2.3 which was a very similar task to one in the December 2008 paper. Also many candidates are unable to understand a simple instruction and this was evidenced in task 2.2 where candidates were required to calculate the additional profit and return on the additional investment. Most candidates simply produced a full revised profit and loss account and a revised return on net assets (RONA).

Students should be reminded to keep their answers neat and clear and show all their workings. Many struggled to achieve marks because of untidy workings or complete lack of workings. Also candidates should not use red pen or write in the margin (other than the question number). Candidates need to practise basic mathematical skills and must read the requirements carefully. It is good practice to re-read the question after completion of the task to ensure that all requirements have been met.

Section 1

Task 1.1 - Overall parts (a), (b) and (c) were very well answered and many candidates achieved full (or very near full) marks. Part (d) was sometimes well answered and often poorly answered. The weaker candidate struggled with all parts.

Task 1.1 (a)
This task assessed candidates' competence in deriving basic costing information from data provided. It has been assessed in every exam and this will continue in the foreseeable future. Candidates may be presented with information in the form of a budgetary report, as in this exam; in the form of a standard cost card; or in the form of a schedule of information. In all cases the candidate needs to extract the relevant information to calculate the requirements.

Task 1.1 (b)

This asked candidates to calculate six variances. These have featured in virtually every previous exam and candidates were generally well prepared with many achieving completely correct answers. Candidates who were not able to correctly calculate the variances often demonstrated confusion and attempted to multiply or divide all the numbers in the question.

Common errors included the following:

- Calculating the direct materials usage variance as 260A (arrived at by comparing 2,260 with 2,000
- Labour efficiency calculated as 330 hours compared with 300 instead of 350
- Fixed overhead volume variance as £7,500 vs £7,700 to give £200F

Alsol, some students' calculations made it obvious that they had not been taught variances, did not revise sufficiently or had a complete lack of aptitude for calculations. Some provided calculations which used every number in the questions several times.

Task 1.1 (c)

This task required candidates to produce an operating statement. It was generally well answered with many scoring full marks. Very few candidates failed to produce a reconciliation. Some started with £27,300 instead of £30,030 but the vast majority of candidates now seem to realise what is being reconciled to what.

Task 1.1 (d)

This task required candidates to draft a report, using additional information from the Production Director, explaining the variances. This was the least well answered part of the task, but still seemed better than on previous occasions, as the majority of students did try to give some kind of explanation for the variances, rather than just state what they were. This time most candidates considered the additional information; however, many were unable to fully analyse the variances in conjunction with this information. Also many did not think about the link between the variances. Despite this, there were many excellent answers.

Task 1.2

This task required the preparation of a standard cost card. Very few candidates achieved full marks on what is a basic task. Many could not deal with the correct units and often their answer was out by a factor of 10, 100, 1,000 or even 1 million.

There seemed to be very variable efforts here, with much confusion over the units/quantities. It was not clear whether students ignored the requirement for a 10,000 cost card, or simply were unable to manipulate the data to get the correct quantities and costs. Many attempts were a mixture of 1 bar, 10,000 bars or 100,000 bars. Also disappointing was the failure of many students to show a full cost card with a breakdown of all the constituent elements. Students had most success with the costs for direct labour – this was the item most frequently answered correctly.

Task 1.3

This was also generally well answered and many candidates scored perfect marks. Some candidates had clearly not studied the topic and had no idea how to provide an answer.

One common problem in part (b) was that often candidates just stated that "the contract would not be cheaper", but no workings at all would be shown. While the candidate may easily be able to spot that the contract would not be cheaper, the question clearly states "calculate" so some form of workings are expected to get full marks.

Section 2

Task 2.1 (a)
As usual, the performance indicators were well done by students. The most common problem areas were RONA (although this seemed better than in previous exam sittings) where various combinations of net assets and turnover seemed to be used, and fixed asset turnover where the most common mistake was to divide fixed assets by turnover.

Task 2.1 (b)
Many students had clearly read previous Chief Assessor's reports and the recent articles in *Accounting Technician* magazine. However, some had not and could not produce good answers to this task. Many candidates did not read the question carefully and did not consider all the variables or apply their answer to the margins.

Task 2.2
This was poorly handled – relatively few students read the question properly and calculated the additional profit. The task clearly required candidates to calculate the total annual increase in profit and then the return on the additional investment. Some candidates achieved full marks in both parts but many simply produced a revised profit and loss account and did not calculate the additional profit. Also many did not calculate a return on the additional investment but a revised total RONA.

Task 2.3
This task was generally well answered with many candidates scoring full marks. However, there were many candidates who did not understand how to answer this task. This was disappointing on two counts, firstly the topic of DCF is fundamental to management accounting and is introduced in ECR and secondly, this topic was examined in December 2008.

It would be very difficult to say just how many different approaches (and answers) were given by weaker candidates. On the positive side a significant number achieved full (or very nearly) marks to this question and showed a complete understanding of the concepts. The corollary of this was that many seemed to have completely forgotten the concepts of DCF and/or could not apply this to the situation in the question. Students could not seem to distinguish between purchase costs and running costs, let alone what the impact of residual value meant. There were various combinations of discounting and inflating, often not totalled to achieve net present costs or discounted savings. Workings were also few and far between (as ever, those who achieved full marks showed clearly where their figures came from!) The conclusion/recommendations showed clearly that many had no idea what they were comparing.

Support book Part 3
Questions

Source:
2003/2006 standards exam; June 2009 sitting

Contents:
Unit 33: Management Accounting (MAC)
AAT Level 4 Diploma Pathway (2003/2006 standards)

Monday 15 June 2009 (morning)

Time allowed - **3 hours** plus 15 minutes' reading time

This exam paper is in **TWO** sections.

You must show competence in BOTH sections. So try to complete EVERY task in BOTH sections.

Section 1 contains 4 tasks and Section 2 contains 2 tasks.

You should spend about 75 minutes on Section 1 and about 105 minutes on Section 2.

You should include all your workings and essential calculations in your answers.

Section 1

You should spend about 75 minutes on this section. Against each task is the recommended time for that task, but please note that these times are **guidelines** only.

Data

Coverpod makes protective covers for mobile phones and MP3 players. The Mobile Phones division produces two products, the Basik and the Xtreem.

You are employed as an Accounting Technician by the company and have been asked to prepare budgeted information for the two products for the next period.

You have been given the following information to help you to prepare the budget for the month of July 2009.

Forecast sales volume (units)

- The company operates a five day week for both production and sales.
- There are five weeks in July.
- Sales for July are forecast to be 35,000 units for the Basik and 15,000 units for the Xtreem.
- The sales price per unit is £10 for the Basik and £18 for the Xtreem.

Stocks

- Opening stock at the beginning of July is 4,000 units of the Basik and 2,000 units of the Xtreem.
- The finished stock of both products at the end of July is planned to be equal to one weeks sales in July.

Materials

- Both products use the same polymer material.
- The cost of the polymer is £80 per kilogram.
- The Basik uses 57 grams and the Xtreem uses 90 grams of polymer.
- 5% of material is lost during the manufacture of Basik and 10% is lost during the manufacture of Xtreem. This material has no value.

Labour

- Mobile Phones division normally has up to 40 production employees available at any time. This is achieved through a combination of employed and contracted staff.
- All staff work a 40-hour week.
- A Basik requires 6 minutes of labour and a Xtreem requires 12 minutes.
- All staff cost the company £15 per hour.
- Staff costs are completely variable.

Production overheads

- Total production overheads are £140,000 per month.
- Overheads are absorbed on labour hours.
- The absorption rate is based upon 7,000 hours per month.

Task 1.1 (40 minutes)

Prepare the following information for July 2009:

(a) sales forecast, in units and £, for each product

(b) production budget, in units, for each product

(c) materials requirements budget, in kilos and £

(d) direct labour budget, in hours and £

(e) budgeted overhead absorption rate per unit for each product

(f) materials cost per unit for each product

(g) labour cost per unit for each product

Note:
Answers should be given to the nearest whole number.

Data

The MP3 division produces 2 products, the XP and the ZM. Both products require a special plastic which is in short supply. The following information is available for the month of July 2009.

- Production requirement for July has been calculated as 40,000 XP and 20,000 ZM.
- Each XP requires 12 minutes of labour and each ZM requires 18 minutes.
- The labour cost is £15 per hour.
- The material cost is £100 per kilogram and the material requirement is 60 grams for the XP and 100 grams for the ZM.
- Only 4,000 kilograms of material will be available.
- The fixed costs of production per unit are £2 per XP and £3 per ZM.
- The sales price per unit is £15 for an XP and £24 for a ZM.

Task 1.2 (15 minutes)

Calculate the following:

(a) total material requirements for July
(b) shortfall in material for July
(c) contribution per unit of XP and ZM
(d) contribution per limiting factor for XP and ZM
(e) how many units of each product should be manufactured

Additional data

The plastic cost has increased over the past few months and the historical cost per kilogram is shown below.

	April 2009 £	May 2009 £	June 09 £
Cost per kilogram of plastic	90	94	100

Task 1.3 (10 minutes)

(a) Convert the cost per kilogram for April and June to index numbers using January 2008 as the base of 100. The price per kilogram at January 2008 was £80.

(b) It is expected that the index number for plastic for December 2009 will be 135. Calculate the expected cost per kilogram for December 2009.

(c) Calculate the percentage increase in the price of plastic from January 2008 to December 2009.

(d) Explain how a forward purchasing contract could have reduced the cost increases for Coverpod.

Additional data

The Mobile Phone division is considering designing a special cover for skiers and is using target costing to arrive at the target cost of the product. You have been given the following information and asked to calculate the target cost for materials so that the Purchasing Manager can use this as a target in her negotiations with suppliers.

- The price at which the product will be sold is £25.
- The company has firm orders for 20,000 units.
- The fixed costs per unit are £8 per unit.
- The labour requirement per unit is 10 minutes at a cost of £18 per hour.
- The required profit margin is 40%.
- The material requirement is 100 grams per unit.

Task 1.4 (10 minutes)

(a) Calculate the target cost per kilogram for the materials component of the product.

(b) The Purchasing Manager has reported back that the supplier's normal price for the **material** is £50 per kilogram but she has been offered a discount of 15%. Calculate whether the offer should be accepted.

(c) What is the discount required to achieve the target cost?

Section 2

You should spend about 105 minutes on this section.

Data

Coverpod has developed a special laptop cover called LapX, which is designed to be unbreakable. Coverpod operates an integrated standard cost system in which:

- purchases of materials are recorded at standard cost
- direct material costs and direct labour costs are variable
- production overheads are fixed and absorbed using units of production

The budgeted activity and actual results for the year ended May 2009 for the production of the LapX cover are as follows:

		Budget		**Actual**
Production (units of LapX)		50,000		51,000
Direct materials	50,000 kgs	£2,500,000	50,500 kgs	£2,474,500
Direct labour	2,000 hrs	£40,000	2,050 hrs	£40,000
Fixed overheads		£1,250,000		£1,350,000
Total cost		£3,790,000		£3,864,500

Your colleague has already correctly calculated the following information:

- **Material price variance is £50,500 favourable.**
- **Material usage variance is £25,000 favourable.**

Task 2.1 (45 minutes)

(a) **Calculate the following information for May:**

(i) standard price of materials per kilogram
(ii) standard usage of materials for actual production
(iii) the total standard cost for actual production

(b) **Calculate the following variances for May:**

(i) the direct labour rate variance
(ii) the direct labour efficiency variance
(iii) fixed overhead expenditure variance
(iv) fixed overhead volume variance

(c) **Prepare an operating statement reconciling the standard total cost for actual production with the actual total cost of actual production.**

Additional data

A major customer has told the business that some recently purchased covers have failed. The Managing Director is concerned and has asked you to investigate. You have received the following comments from the Purchasing Manager and the Production Manager.

Purchasing Manager

"As you can see, the problem is not with the purchasing because we made a favourable variance on the price and also the usage variance was favourable. I think it was the staff. Were they lower skilled than normal?"

Production Manager

"I don't understand what the problem was, but the material was a lot more difficult to use. I think that might have been why the machine gear needed to be replaced at a cost of £100,000. Fortunately some of my staff stayed late to help out and they did not claim the overtime. I think this amounted to 50 hours additional time without any additional cost of labour."

(d) **Using the information provided, draft a report for the Managing Director commenting on the Purchasing Manager's and Production Manager's statements and what action should be taken.**

Task 2.2 (60 minutes)

Additional data

The latest draft management accounts for the LapX product for the year ended May 2009 are shown below.

	LapX
Sales units of LapX	45,000
	£000
Sales revenue	**22,500**
Cost of sales	
Direct materials	6,750
Direct labour	3,600
Fixed overhead	7,500
Total cost of sales	**17,850**
Gross profit	**4,650**
Fixed selling and distribution costs	900
Fixed administration costs	500
Fixed advertising costs	1,500
Net profit	**1,750**

	000
Net assets (including stock and debtors)	£15,000
Stock of finished goods	£4,000
Labour hours worked during the period	180

(a) Calculate the following performance indicators for LapX, expressing each answer to 2 decimal places:

(i) sales price per unit
(ii) gross profit margin
(iii) materials cost as a percentage of turnover
(iv) direct labour cost per hour
(v) advertising cost as a percentage of turnover
(vi) net profit margin
(vii) contribution as a percentage of turnover
(viii) return on net assets (RONA)
(ix) stock turnover in days

Task 2.2 continued

Additional data

The business has undertaken a review. The following two suggestions are being considered:

1. Sponsor Sir Ralph Flint the explorer and adventurer
   - The cost of sponsorship will be £1 million and it is felt that the effect will be to increase the volume of sales by 5,000 units per month.
   - The only other costs which will increase are the materials and labour costs.
   - The stock holding will be managed down to £2 million.

2. Manufacture additional LapXs for the Orange Computer brand for sale in the US market
   - All current production is sold only in Europe and would continue unaffected.
   - Orange Computers has agreed to pay £350 per laptop for a monthly volume of 10,000 laptops.
   - The current production capacity of the business is 60,000 laptops per month.

(b) **Redraft a profit and loss account to take account of the suggestion to sponsor Sir Ralph Flint and reduce the stock levels down to 5,000 units valued at £2 million.**

Recalculate the following ratios:
(i) **Gross profit margin**
(ii) **Net profit margin**
(iii) **Return on net assets**

(c) Prepare a calculation to identify whether the deal with Orange Computers should be accepted on financial grounds.

(d) Explain TWO other considerations which should be considered when deciding whether to accept the Orange Computers deal

Model Answers

Note:

The model answers may, in parts, be longer than would be expected of candidates in the exam. The fuller version is given for teaching purposes.

Section 1

Task 1.1

(a) Sales forecast	**Basik**	**Xtreem**
Sales in units	35,000	15,000
Sales price per unit	£10	£18
Sales in £	£350,000	£270,000

(b) Production budget	**Basik**	**Xtreem**
Sales	35,000	15,000
Plus closing stock	7,000	3,000
Less opening stock	4,000	2,000
Required production	38,000	16,000

(c) Materials requirements budget	**Basik**	**Xtreem**
Production in units	38,000	16,000
Production materials (units x 57 and 90)	2,166,000	1,440,000
Wastage (5/95 and 10/90)	114,000	160,000
Gross production material (g)	2,280,000	1,600,000
Gross production material cost (£80/kg)	£182,400	£128,000

(d) Direct labour budget, in hours and £	**Basik**	**Xtreem**
Production in units	38,000	16,000
Hours per unit	0.10	0.20
Total hours	3,800	3,200
Labour cost per hour	15	15
Total labour cost	£57,000	£48,000

(e) Budgeted overhead absorption rate per unit	**Basik**	**Xtreem**
Labour hours per unit	0.10	0.20
BOAR per hour	£20	£20
BOAR per unit	£2	£4

Budgeted overhead absorption rate working	
Fixed production overheads	140,000
Labour hours per month	7,000
Budgeted overhead absorption rate per hour	20

	Basik	**Xtreem**
(f) Materials cost per unit for each product	£4.80	£8.00
(g) Labour cost per unit for each product	£1.50	£3.00

Task 1.2

(a) 40,000 x 60 grams + 20,000 x 100 grams = 4,400,000 grams or 4,400 kilos

(b) 400 kilos

(c)

	XP £	ZM £
Sales price	15.00	24.00
Direct materials	6.00	10.00
Direct labour	3.00	4.50
Contribution per unit	6.00	9.50

(d)

	XP	ZM
Contribution per unit	£6.00	£9.50
Kgs of materials per unit	0.06	0.10
	£100.00	£95.00

(e) 40,000 XPs using 2,400 kilos leaving 1,600 kilos of materials to make 16,000 XPs

Task 1.3

(a) April = £90/£80 x 100 = 112.5
June = £100/£80 x 100 = 125

(b) £80 x 135/100 = £108

(c) £108 - £80 = £28, £28/£80 – 100 = 35%

(d) The forward purchasing contract would set the price at the time the contract is taken and this could mean that the price increase is less than 35%.

Task 1.4

(e)

	£
Sales price per unit	25
Profit margin (40% of sales)	10
Total costs	15
Fixed cost per unit	8
Labour cost per unit	3
Maximum material cost per unit	4
Target cost per kilogram	40

(b) The discount will reduce the £50 to £42.50 which is above the target cost. Therefore the answer is no. Alternatively, the Purchasing Manager should ask for a further discount.

(c) The manager should ask for a 20% discount.

Section 2

Task 2.1

(a)

(i)	£2,500,000 / 50,000 = £50 per kg
(ii)	51,000 kgs
(iii)	£3,790,000/50,000 x 51,000 = £3,865,800

(b)

(i)	**Direct labour rate variance**
	2,050 hours x £40,000/2,000 - £40,000 = £1,000 Favourable
(ii)	**Direct labour efficiency variance**
	2,000/50,000 x 51,000 – 2,050 = 10 hours adverse x £20 per hour = £200 Adv
(iii)	**Fixed overhead expenditure variance**
	£1,350,000 - £1,250,000 = £100,000 Adverse
(iv)	**Fixed overhead volume variance**
	51,000 – 50,000 = 1,000 hours x boar of £1,250,000/50,000 = £25,000

(c)

Standard total cost for actual production			£3,865,800
Variances	Adverse	Favourable	
Direct materials price		£50,500	
Direct materials usage		£25,000	
Labour rate		£1,000	
Labour efficiency	£200		
Fixed overhead expenditure	£100,000		
Fixed overhead capacity		£25,000	
	£100,200	£101,500	£1,300
Actual total cost for actual production			£3,864,500

(d)

To:	**Managing Director**	**Subject:**	**Covers**
From:	**AAT student**	**Date:**	**17 June 2009**

The purpose of this report is to provide comments on the statements made by the Purchasing and Production Managers.

The Purchasing Manager commented that there was no problem with purchasing and a favourable variance was achieved. Whilst this is factually correct (favourable price variance of £50,500) in so far as the price achieved was below the standard, what is unclear is whether the quality of the product was also lower. The usage variance was also favourable (£25,000) meaning that less material was used than expected. This could lead to a conclusion that the material was of a high enough quality.

However, could it be that the failure is the result of using less material of a lower quality resulting in a less robust cover?

The Production Manager has commented that the material was a lot more difficult to use and may have even caused the failure of the machine. If this was the case, then the favourable price and usage variance has been negated by the adverse fixed overhead expenditure variance of £100,000.

The material needs to be reviewed in order to establish if it is of acceptable quality.

Task 2.2

(a)

(i)	Sales price per unit	£500
(ii)	Gross profit margin	20.67%
(iii)	Materials cost as a percentage of turnover	30.00%
(iv)	Direct labour cost per hour	£20.00
(v)	Advertising cost as a percentage of turnover	6.67%
(vi)	Net profit margin	7.78%
(vii)	Contribution as a percentage of turnover	54.00%
(viii)	Return on net assets (RONA)	11.67%
(ix)	Stock turnover in days	81.79

(b)

	LapX	**Adjustments**	**LapX revised**
Sales units of LapX Extreme	45,000	5,000	50,000
	£000		£000
Sales revenue	22,500	2,500	25,000
Cost of sales			0
Direct materials	6,750	750	7,500
Direct labour	3,600	400	4,000
Fixed overhead	7,500	0	7,500
Total cost of sales	17,850	1,150	19,000
Gross profit	4,650	1,350	6,000
Fixed selling and distribution costs	900	0	900
Fixed administration costs	500	0	500
Fixed advertising costs	1,500	1,000	2,500
Net profit	1,750	350	2,100

Gross profit margin = 6,000/25,000 = 24%
Net profit margin = 2,100/25,000 = 8.4%
Return on net assets = 2,100/11,000 = 19.09%

(c) Working for Orange computers

The variable cost per unit is made up of materials and labour	
Direct materials cost per unit	£150.00
Direct labour cost per unit	£80.00
Total variable cost per unit	£230.00
Price offered by Orange	£350.00
Contribution per unit	£120.00
Total additional contribution	£1,200,000.00

The contract will increase the contribution by £1.2 million and should therefore be accepted**.**

(d) Any **two** considerations from the following:

- Will Orange expect the price to be maintained in future years and if so what is the likelihood of the opportunity loss of additional European business? Or is it simply a one-off deal?
- Is it possible that Orange may decide to compete in the European market with the LapX? A contract clause could be used to prevent this.
- If the contract is accepted, the company has no slack in its production and if there are machine.
- Existing customers may hear of the deal and attempt to renegotiate their prices down.

Chief Assessor's report

AAT Accounting Qualification
Diploma pathway
Diploma level
Management Accounting (MAC)
2003 Standards

June 2009

General comments

At this sitting, many candidates demonstrated an excellent level of knowledge and understanding achieving high marks in both sections. Some, however, were able only to achieve high marks in one of the sections with poor marks in the other. This may be explained by focusing too much time on certain topics to the detriment of others.

A number of candidates did not demonstrate a good level of knowledge and understanding in either section. Some candidates struggled to prepare a basic budget, calculate basic standard costing information and variances and deal with the peripheral topics of target costing and percentage increases. This appears to be due to the lack of knowledge and the lack of application of the knowledge.

One major problem demonstrated by many candidates was the complete lack of understanding of the concept of contribution. This is one of the most important concepts that the competent management accountant needs to understand. This concept is introduced at ECR and used in the CVP (Break even analysis) and limiting factor decision making topics assessed at intermediate stage in ECR. These topics are also relevant to MAC, PEV and PCR and students will be asked to revise/ prepare budgets using contribution theory (limiting factor analysis) and also to prepare calculations for decision making where contribution is the important financial criteria.

Candidates should be reminded to keep their answers neat and clear and show all their workings. Many candidates struggled to achieve marks because of untidy workings – or none at all. Also, candidates should not use red pen on their scripts or write in the margin, other than the question number. Candidates need to practise basic mathematical skills and must read the requirements carefully. It is good practice to re-read the question after completion of the task to ensure that all requirements have been met.

Section 1

Task 1.1
This task required the preparation of budgets for two products for one month. Many candidates achieved an excellent result on this task and demonstrated that they were well prepared. Even poorer candidates were often able to earn credit by providing detailed workings through the task and even when part 1.1(b) was incorrectly calculated, their own figures were correctly used on the subsequent parts.

Where candidates made mistakes it was either throughout the task, and these candidates clearly did not understand how to draft a simple budget, or in the calculation of the material purchases budget, with these candidates often not being able to deal with the material loss. Many used 5% instead of 5/95, and also a significant number reduced their material requirement by the amount lost rather than adding it. In 1.1(d) many candidates correctly calculated the hours required, but then ignored those figures to calculate the cost, and calculated a cost based on all 40 employees even though the question stated that staff costs are variable. In 1.1(e) many failed to calculate an overhead absorption rate using the information given, while others calculated the £20 per hour and then failed to find a rate per unit.

Task 1.2
Parts (a) and (b) were very well answered. However, in part (c) the majority of candidates included fixed costs when determining unit contribution (in many cases the variable costs were ignored and only the fixed costs were deducted from the sales price). Even those students who had correctly calculated a contribution had no idea how to find contribution per limiting factor in part (d).

Very few candidates achieved full marks in 1.2. This is very disappointing as contribution theory is a fundamental management accounting concept.

Task 1.3
There were very mixed answers to this task with some candidates demonstrating a clear understanding and others producing very confused answers to part (a). A common misconception in part (d) was to describe discounts offered for bulk purchasing as a way of reducing costs.

Task 1.4
This was answered well by many candidates but many produced poor answers. The most common error in part (a) was to just find the total costs and to offer that as an answer for the materials target cost. Parts (b) and (c) were somewhat better, although many candidates attempted to work out figures for 20,000 units or 100g and therefore confused themselves rather than just using the cost per kilogram.

Section 2

Task 2.1
Many candidates scored extremely well in all parts and clearly demonstrated competence. Parts (a), (b) and (c) were generally answered correctly. The report in part (d), however, often consisted of a suggested reason for each variance without referring to the two managers' comments. The majority of candidates failed to appreciate the link between the variances, taking each in isolation without considering if their comments made sense in view of all information provided.

Task 2.2
(a)
Many candidates achieved a very good score on the indicators. However too many did not know how to calculate the return on net assets (RONA) or the stock turnover.

(b)
This part required candidates to revise the profit and loss account based upon a sponsorship deal which would increase costs but also increase demand. There was an amendment to the information in part (a) from a “month of May” to “year ended May”, without considering part (b). The correct answer to part (b) therefore showed an extremely large increase in profit from 45,000 units to 105,000 units (45,000 plus 5,000 per month). Many candidates simply prepared the revised profit and loss account correctly based upon the written instructions. Some, however, read the figures for part (a) based upon one month not a year. They therefore produced a revised profit and loss account based upon 50,000 units (45,000 plus 5,000). Candidates were awarded full credit if they took this approach.

(c) and (d)
Many candidates did not understand that the additional contribution had to be considered and simply said “reject” because the sales price is less then the production cost (the production cost including fixed costs). Again this demonstrates a complete lack of understanding of fundamental decision-making concepts.

Support book Part 4
Questions

Source:
2003/2006 standards exam; December 2009 sitting

Contents:
Unit 33: Management Accounting (MAC)
AAT Level 4 Diploma Pathway (2003/2006 standards)

Monday 30 November 2009 (morning)

Time allowed - 3 hours plus 15 minutes' reading time

This exam paper is in TWO sections.

You must show competence in BOTH sections. So, try to complete EVERY task in BOTH sections.

Section 1 contains 4 tasks and Section 2 contains 3 tasks.

You should spend about 90 minutes on Section 1 and about 90 minutes on Section 2.

You should include all your workings and essential calculations in your answers.

Both sections are based on the information below about Colonel Curry.

Section 1

You should spend about **90 minutes** on this section.
Against each task is the recommended time for that task, but please note that these are guidelines only.

Data

Colonel Curry manufactures ready meals to sell to supermarkets and operates a chain of restaurants in England. Two mixes are manufactured to be used in the ready meals and the restaurants. The two mixes are Mix X and Mix Y.

The company currently has 30 restaurants around England, each open for 7 days per week.

You are employed as an Accounting Technician by the company and have been asked to prepare budget information for the two mixes for the next period.

You have been given the following information to help you to prepare the budget for weeks 1 to 4.

Mix X

Demand forecast for Mix X

- Each restaurant will use 1 one kilogram pack of Mix X per day for the first 2 weeks.
- In weeks 3, 4 and 5 demand will be 2 packs per day per restaurant.

Production and stock

- The company operates a five-day week for production.
- The opening stock of Mix X is 150 packs of 1 kilogram.
- The policy is to have closing stock levels at the end of weeks 1 to 4 of 3 days demand for the following week.

Raw material requirements

100 kilograms of Mix X requires three spices mixed in the following proportions:

- Spice A - 40 kgs
- Spice B - 40 kgs
- Spice C - 20 kgs

Mix Y

- Your colleague has calculated the production requirement for mix Y as follows.

Week	**1**	**2**	**3**	**4**
Demand (1 kilogram packs)	190	200	250	300
Production requirement (1 kilogram packs)	180	252	360	414

- Mix Y requires two spices mixed in the following proportions:
    - Spice R 60%
    - Spice P 40%

- **Mix Y loses 10% of its weight during the production process.**

Task 1.1 (30 minutes)

Prepare the following information for each of the weeks 1 to 4 (you need to show a budget for each week).

(a) demand forecast for packs of Mix X

(b) production budget, in packs, for Mix X

(c) materials requirements budget, in kilograms, for Mix X

(d) materials requirements budget, in kilograms, for Mix Y.

Data

The Ready Meals division produces meals to sell to major supermarkets. The recipe is slightly different from that sold in the restaurants and the meals are branded under the supermarkets' own brands.

The following is a copy of the original budgets and actual performance of the company for November 2009. The company produced two draft budgets, one based on 40,000 meals and one based on 50,000 meals. Any differences between the two budgets are due entirely to the different volumes.

	Draft budgets		**Actual**
Sales volume (units)	40,000	50,000	30,000
	£	**£**	**£**
Turnover	80,000	100,000	60,000
Production costs			
Materials	28,000	35,000	24,000
Labour	18,000	20,000	16,000
Energy costs	7,000	8,500	7,000
Rent and rates	12,000	12,000	12,000
Depreciation	5,000	5,000	6,000
Total costs	**70,000**	**80,500**	**65,000**
Profit / (Loss)	**10,000**	**19,500**	**(5,000)**

Task 1.2 (15 minutes)

(a) Calculate the following from the budgeted data:

(i) selling price per unit
(ii) materials cost per unit
(iii) variable cost of labour per unit
(iv) fixed labour costs
(v) variable costs of energy per unit
(vi) fixed energy costs

(b) Prepare an operating statement to show the flexed budget for the actual production of 30,000 meals, the actual results and the variances.

Additional data

- Production was reduced because of a machine breakdown restricting capacity. A new machine was purchased and installed during the month.
- Energy prices have been increasing due to increases in the prices of oil and gas.
- The company values stocks under full production cost.
- The company uses absorption costing and is considering increasing production above the sales volume in order to create stocks of meals.

Task 1.3 (20 minutes)

Write a report to the Managing Director which:

(a) outlines the possible reasons for the loss of £5,000 in November

(b) explains how increasing production above the sales volume (in order to create stocks of meals) would affect the profit in the short term and long term.

Task 1.4 (25 minutes)

Colonel Curry has been approached by an overseas supermarket chain (Kteep) to purchase some ready meals. Kteep has offered to purchase the meals at £1.50 per meal.

(a) Calculate the full production cost per meal based on the budget for 40,000 meals.

(b) Calculate the variable production cost per meal.

(c) Recommend, with an explanation, whether the offer from Kteep should be accepted.

(d) State THREE other factors which need to be considered.

Section 2

You should spend about 90 minutes on this section.

Against each task is the recommended time for that task, but please note that these times are guidelines only.

Data

Colonel Curry also produces a chocolate dessert. The business operates an integrated standard cost system in which:

- purchases of materials are recorded at standard cost
- direct material costs and direct labour costs are variable
- production overheads are fixed and absorbed using labour hours.

The budgeted activity and actual results for the month of November 2009, for the production of the chocolate dessert are as follows:

		Budget		**Actual**
Production (number of desserts)		18,000		17,000
Direct materials	1,800 kgs	£16,200	1600 kgs	£16,000
Direct labour	720 hrs	£5,760	640 hrs	£5,280
Fixed overheads		£7,200		£9,200
Total cost		£29,160		£30,480

Your colleague has correctly calculated the following information:

- the direct labour rate variance is £160 adverse
- the direct labour efficiency variance is £320 favourable

Task 2.1 (50 minutes)

(a) Prepare a standard cost card for the production of one chocolate dessert.

(b) Calculate the following variances for November:

(xix) direct material price variance
(xx) direct material usage variance
(xxi) fixed overhead expenditure variance
(xxii) fixed overhead capacity variance
(xxiii) fixed overhead efficiency variance.

(c) Prepare an operating statement reconciling the total standard cost of 17,000 desserts with the total actual cost of 17,000 desserts.

Additional data

- One member of staff was on long-term sick leave during the whole of November resulting in only 640 hours being available for production. This included some overtime worked by the existing staff. Overtime is paid above the normal hourly rate.
- A new supplier provided the materials. The Tasting Manager has confirmed that the quality of the material was better than that of the old supplier, resulting in a richer dessert. The manager was happy to pay a higher price to the new supplier.
- Due to the richness of the new material, the size of the dessert has been reduced. It is hoped that this has offset the additional cost of the materials.
- An unbudgeted repair to a machine cost £2,000.

(d) Using the information given above, draft a report for the Managing Director commenting on the variances.

Data

The company gathers information on all the restaurants and uses this information to manage and improve its restaurants. The company opened a new restaurant on 1 October 2008 in London. This is the first restaurant to be opened in the south of England.

The management accounts for the new restaurant in London for the year ended 30 September 2009, together with the average restaurant's management accounts for the same period, are shown below.

	London	**Average**
Number of covers (seats)	48	90
Number of days in the period	365	365
Number of meals served	14,892	19,710
Capacity of restaurant (maximum number of meals)	17,520	32,850
	£	**£**
Turnover	327,624	433,620
Direct material costs:		
Main course (chicken dish, cost £4 per dish)	53,600	63,072
Dessert (chocolate dessert, cost £2 per dish)	22,338	35,478
Other main courses and desserts	29,784	39,420
Direct labour cost (kitchen and waiting staff)	59,568	39,420
Management cost	35,000	30,000
Rent and rates	50,000	55,000
Amortisation of fixtures and fittings	25,000	35,000
Total cost	275,290	297,390
Net profit	52,334	136,230
Capital invested	125,000	175,000

Task 2.2 (20 minutes)

Calculate the following information for the London restaurant and the average restaurant:

(a) Average sales price per meal served

(b) Number of chicken dishes served

(c) Percentage of customers who purchase a chicken dish

(d) Number of chocolate desserts served

(e) Percentage of customers who purchase a chocolate dessert

(f) Direct labour cost per meal

(g) Net profit margin

(h) Return on capital invested

(i) Utilisation of the restaurant (calculated as the number of meals served as a percentage of the capacity).

Data

You have been given the following information.

- The average selling price of a meal in similar London restaurants is £30.
- The restaurant currently has 48 seats arranged in the same density as the restaurants in the chain. In other similar London restaurants the tables tend to be higher density. The London restaurant could have an additional 12 tables if the existing tables were rearranged.
- It has been observed that a number of the serving staff forget to offer customers the dessert menu and often neglect the customers towards the end of the meal.
- A mystery diner (a customer who is employed by the company and visits the restaurant as an ordinary customer) has reviewed the restaurant and commented that the customer service was satisfactory but not up to the usual high standard. In particular the serving staff were not very friendly and rarely smile.

Task 2.3 (20 minutes)

Draft a report for the Finance Director covering the following:

(a) Compare the London restaurant with the average restaurant.

(b) Suggest how to improve the performance of the London restaurant.

Model Answers

Note:
The model answers may, in parts, be longer than would be expected of candidates in the exam. The fuller version is given for teaching purposes.

Task 1.1

	Week 1	Week 2	Week 3	Week 4
(a) Demand forecast, in packs of Mix X				
Packs of Mix X	210	210	420	420

(b) Production budget, in units, for Mix X				
Mix X				
Demand	210	210	420	420
Plus closing stock	90	180	180	180
Less opening stock	150	90	180	180
Production requirement	150	300	420	420

(c) Materials requirements budget, in kilos for Mix X				
Mix X				
Production requirement	150	300	420	420
Spice A	60	120	168	168
Spice B	60	120	168	168
Spice C	30	60	84	84

(d) Materials requirements budget, in kilos for Mix Y				
Mix Y				
Production requirement	180	252	360	414
Input into process	200	280	400	460
Spice R	120	168	240	276
Spice P	80	112	160	184

Task 1.2

(a)

(i) £80,000 / £40,000 = £2 per unit

(ii) £28,000/40,000 = £0.70 per unit

(iii) Labour costs for 40,000 units = 18,000
for 50,000 units = 20,000
Variable costs for 10,000 units = 2,000 or £0.20 per unit

(iv) Therefore fixed costs are £10,000 (£20,000 – (50,000 x £0.20)

(v) Energy costs for 50,000 units = 8,500
Energy costs for 40,000 units = 7,000
Variable costs for 10,000 units = 1,500, therefore the cost per unit is £0.15

(vi) Fixed costs for 50,000 units = 8,500 less 50,000 x 0.15 = 1,000

(b)

Operating statement

	Flexed budgets	**Actual**	**Variance**
Sales volume (units)	30,000	30,000	
Turnover	60,000	60,000	0
Production costs			
Materials (volume x £0.70	21,000	24,000	3,000 A
Labour (working 1)	16,000	16,000	0
Energy costs (working 2)	5,500	7,000	1,500 A
Rent and rates	12,000	12,000	0
Depreciation	5,000	6,000	1,000 A
Total costs	59,500	65,000	5,500 A
Profit / (Loss)	500	(5,000)	-5,500 A

Tutorial note:

Working 1 (application of the high low method) £10,000 + 30,000 x £0.20 = £16,000
Working 2 (application of the high low method) £30,000 is £1,000 + 30,000 x 0.15 = £5,500

Task 1.3

To:	Managing Director	**Subject:**	Ready meals
From:	AAT student	**Date:**	30 November 2009

The purpose of this report is to provide reasons for the loss and explain how making for stock could increase profits.

Reasons for the loss:

- Material cost is £3,000 more than budgeted. This could be due to cost of materials increasing due to new suppliers, general inflation, or fuel price rises. Or it could be because materials were wasted in production due to machine breakdowns or poorly skilled staff or poor quality materials.
- Energy cost is £1,500 more than budgeted. This could be due to general energy price increases due to economic conditions or it could be that energy was wasted in production.
- Depreciation costs are up £1,000. This could be due to the purchase of the machine increasing the depreciation charges.
- Reduction in volume due to machine breakdown

Making for stock:

If the company produced more meals than it sold in the month, stocks would increase. Under absorption costing this means that a proportion of the fixed costs would be tied up in the stock valuation. This would therefore increase profits in the short term. The risks with this is that cash becomes tied up in stock, the stock perishes, the stock will eventually have to be sold and this may affect production in future months and could reduce profits substantially in future periods.

Task 1.4

(a) (70,000/40,000 = £1.75)

(b) Variable production cost

Materials	= £0.70
Labour	= £0.20
Energy	= £0.15
Total	= £1.05

(c) Although the full production cost per meal is higher than the offer from Kteep the variable (marginal) production cost is less. Therefore accepting a price of £1.50 per meal will provide additional contribution. In the short term this is often the key to a decision as the fixed costs cannot change in the short term and are therefore not relevant. Therefore on financial grounds the deal should be accepted.

(d) Could Kteep re import the product and compete in the UK?
Are there any export costs?
Are there any import restrictions into the overseas country?
Could the UK customers find out about the deal and demand similar prices?
Who bears the additional transport costs?
Is there available capacity? (People, space, equipment)
One-off order or likelihood of repeats

Task 2.1

(a)

	Quantity	Cost	Total cost
Direct materials	0.10 kg	£9 per kg	0.90
Direct labour	2.4 minutes	£8 per hour	0.32
Fixed overheads	2.4 minutes	£10 per hour	0.40
Total			1.62

(b)

(i) £16,000 - (1,600kgs x £16,200/1,800kgs) = £16,000 - (1,600kgs x £9) = £16,000 - £14,400 = £1,600 Adverse

(ii) 1,600 kgs - 1,700 kgs = 100 kgs x 9 = £900 Favourable

(iii) £9,200 - £7,200 = £2,000 Adverse

(iv) 720 hours less 640 hours = 80 hours x £10 = £800 Adverse

(v) (17,000 units x 720 hours /18000 units - 640 hours) x £10 = 680 hours - 640 hours
= 40 hours x 10 = £400 Favourable

(c)

Standard total cost for actual production of 17,000 packs = (29,160/18,000 x 17,000)			£27,540
Variances	Adverse	Favourable	
Direct materials price	1,600		
Direct materials usage		£900	
Labour rate	160		
Labour efficiency		320	
Fixed overhead expenditure	£2,000		
Fixed overhead capacity	£800		
Fixed overhead efficiency		£400	
	£4,560	£1,620	£2,940
Actual total cost for actual production			£30,480

(d)

To:	Managing Director	**Subject:**	Variances for November 2009
From:	AAT student	**Date:**	30 November 2009

The purpose of this report is to provide comments on the variances calculated.

(i) Direct material price variance

The price variance is £1,600 adverse. This is because a new supplier has been chosen.

(ii) Direct material usage variance

The usage variance is £900 favourable. This is probably due to the smaller size of the dessert which was intended. The gain on the usage has not offset the additional cost of the materials.

(iii) Direct labour rate variance

One member of staff was off sick and therefore overtime had to be used. This has resulted in an additional cost.

(iv) Direct labour efficiency variance

The labour was more efficient than expected. This could be because there is slack in the standard or it could be that the staff were more motivated because they were being paid overtime. Or the labour efficiency variance might be due to time saved (say in preparation) due to the smaller portions.

(v) Fixed overhead expenditure variance

An unbudgeted repair to a machine cost £2,000. This explains the fixed overhead expenditure variance.

(vi) Fixed overhead capacity variance

The capacity variance is £800 adverse because the availability of labour was reduced due to staff sickness.

(vii) Fixed overhead efficiency variance

This variance is a reflection of the efficiency of the workforce.

Task 2.2

	London	Average
Average sales price per meal served	£22	£22
Number of chicken dishes served	13,400	15,768
Percentage of customers who purchase a chicken dish	90%	80%
Number of chocolate desserts served	11,169	17,739
Percentage of customers who purchase a chocolate dessert	75%	90%
Direct labour cost per meal	£4	£2
Net profit margin	16%	31%
Return on capital invested	42%	78%
Utilisation of the restaurant	85%	60%

Task 2.3

To:	Finance Director	**Subject:**	London restaurant
From:	AAT student	**Date:**	30 November 2009

The purpose of this report is to compare the London restaurant and the average restaurant and suggest improvements.

Average sales price per meal served

The average price per meals served is the same at £22. This is the same as the average; however, it is stated that the average selling price of a meal in London is £30. Therefore the London restaurant could put up its prices in order to improve profits.

Number of chicken dishes served / Percentage of customers who purchase a chicken dish

The London restaurant served a total of 13,400 chicken dishes, although this is less in absolute terms it is 90% of the total number of dishes served. A good result.

Number of chocolate desserts served/ Percentage of customers who purchase a dessert

The number of chocolate desserts is lower than the average (only 75% of customers purchased desert). This could be explained by the staff not offering dessert or not providing customer service towards the end of the meal. The obvious action is to make sure that the customers are serviced and offered dessert. This may also be linked to the friendliness of the staff.

Direct labour cost per meal

This is twice as high in London due to the wage costs being higher as London is a very costly place to live. This also adds weighting to the option to increase the price of the meal to £30.

Net profit margin

The net profit margin is almost half that of the average restaurant (16%). This is due to several factors:

- Smaller size of the restaurant relative to the average (48 tables versus 90). This means that the fixed costs are a greater proportion of the capacity (a manager is needed for a restaurant regardless of size).
- Fixed costs compared to turnover - the rent and rates, fixtures and fitting and management costs are higher per meal served. This will reduce profits.
- London prices – the cost of rent and the manager's salary are probably higher due to the London location.
- Direct labour cost is twice that of the average – again due to London location.
- All this supports the case of increasing the price.
- Increasing the number of tables would increase the capacity and probably increase the profit as the only additional costs would be some fixtures and fittings, additional labour costs and additional material costs. Additional contribution would probably be made.

Return on capital invested

This is lower than the average (48% versus 78%). The main reason for this is the lower profit margin. Improving the profit margin would improve the return.

Utilisation of the restaurant (calculated as the number of meals served divided by the capacity)

The utilisation of the restaurant is 85% compared to the average of 60% which is very good. This probably reflects the London market but does add weight to the suggestion of increasing the table density and thus increasing the number of meals served.

Accounting Qualification

Chief Assessor's report

Intermediate level
Maintaining financial records
and preparing accounts (FRA)

Level 3 Diploma for Accounting
Technicians (QCF)
Financial accounting (FRA)

December 2009

General comments

Section 1 presented a first year partnership with incomplete records and in Section 2 students were required to deal with the disposal of a fixed asset, final accounts adjustments and to prepare a profit and loss account and balance sheet for a sole trader. In both sections students were asked to display their knowledge and understanding by producing written explanations as well as figures.

Most students now show workings for their answers. This enables more marks to be given in the case of a wrong answer, and is a good habit for the workplace.

The improvement in the general standard of double entry accounting, including accurate account names, has been maintained, which is very pleasing. This is important and will continue to be tested.

Students should not use pencil or red ink in their answers. If candidates are untidy this is not specifically penalised, but if it means that workings cannot be followed or words and figures cannot be read, marks will be lost, so students should try to present a neat and tidy exam paper. It is important that students communicate clearly so that the recipient of the information knows exactly what they mean. These are standards that would be expected in the workplace.

Section 1

Task 1.1
Students were required to prepare sales and purchases ledger control accounts from the incomplete records; the missing figures being sales and discounts received. This was designed to test the practical application of students' knowledge and understanding of double entry accounting and control accounts, as well as being able to extract the correct information from incomplete records. As this is fundamental, and frequently tested, students were expected to make entries on the correct side of the accounts and to label them accurately with the appropriate opposite entry. Most students did this very well. Those who got full marks entered the figures and the labels correctly. When mistakes were made they tended to be either minor labelling errors, or a complete lack of understanding. A few students did not note the significance of the business being a new one and inserted opening as well as closing balances. Occasionally mistakes resulted in a discounts received figure in (b) that was not feasible. Students should look to see if their answers are reasonable; clearly a figure for discounts almost as big as the actual purchases figure cannot be correct.

Task 1.2
In this task students were required to prepare the opening capital accounts for the partnership, including the introduction of cash and a vehicle. This was designed to test students' understanding of partnership capital accounts and that capital introduced is not always in the form of cash. Students were expected to make entries on the correct side and with appropriate labels. The task was generally well done although some entries were made on the wrong side and the vehicle was often omitted. A significant number of candidates included drawings, which was not correct and was therefore penalised.

Task 1.3
This task was a simple one testing the calculation of depreciation. Students were expected to note that as it was the first year of trading, the reducing balance calculation is based on the cost of the fixed asset. Most gained full marks, though a significant minority calculated the depreciation as if it were the second year of trading.

Task 1.4

This task tested the application of the accruals concept with a prepayment adjustment in a T-account in (a) and an accrual in a calculation in (b). Students were expected to be able to adjust the expense accounts accordingly, making a pro-rata adjustment in (a) and entering figures on the correct side and with appropriate labelling. There were many errors regarding the pro-rata adjustment and a lot of confusion about which side of the account to use in (a). Performance in (b) was better, as it did not require the T-account or the calculation.

Task 1.5
Journal entries are often tested in Section 2 but this time a single journal entry was included in Section 1 to enable the testing of a narrative, as well as the correct entries for a bad debt write-off. This was followed in (b) by a test of knowledge and understanding regarding the difference between writing off a bad debt and making a provision for doubtful debts. Students were expected to complete the journal pro-forma correctly and then make distinctions between the two types of adjustment. In (a) the correct accounts were not always selected, common mistakes being to use the provision for doubtful debts account. Entries were usually the right way round Labelling of the sales ledger control account was often not precise enough. The narrative was usually satisfactory, though some were too brief (for example, “bad debt”) and some were not narratives in the accounting sense, but explanations of what had been done, demonstrating that the student had no understanding of the meaning or purpose of a narrative.

It was pleasing that in (b) most students were very clear about the difference between a bad debt and a provision for doubtful debts and explained it satisfactorily.

Task 1.6
The production of a trial balance from the preceding incomplete records is a demanding task requiring full understanding of the tasks already performed. It tests double entry, whether students can pull together information from disparate sources, and whether accounts have debit or credit balances. Some students were able to produce correct, balancing trial balances, which was very pleasing, and the majority were able to make a very good attempt. The most common mistakes were confusing bank payments with sales and purchases and control accounts, omitting accounts (such as the bad debt adjustment, discount received, accrual and prepayment, depreciation or accumulated depreciation), not bringing in the correct own figures from task 1.2 and unclear labelling of the two depreciation accounts. Those students who are very weak in this area enter many debits and credits on the wrong side. There are plenty of past papers available, all with this task in Section 1, so students should prepare by practising as many as possible.

Task 1.7
This was a task to test knowledge and understanding of FRS15 and FRS18. Candidates were expected to give the correct technical definition of depreciation, though not necessarily in FRS15 terms. Therefore references to depreciation being to reflect the market value of a fixed asset, to enable the calculation of profit or loss on sale or when to sell a fixed asset, did not gain any credit. These were common alternatives to the correct response, though it was pleasing that many were able to explain the true purpose of depreciation. The answers to (b) were mostly correct, but many students were not able to select the correct two responses to (c).

Section 2

Task 2.1
This task tested whether students knew how to make year-end adjustments in the adjustments column of an ETB. This also, of course, tests double-entry accounting. The expectation was for students to put the correct figures against the correct accounts in the correct column. This was generally very well done, with most

students able make the correct adjustments. The most common error was to use the final balance on the provision for doubtful debts account as the adjustment, rather than the difference between the closing figure and the opening figure.

Task 2.2

The acquisition and disposal of a fixed asset by part-exchange was tested in this task, first by leading students through the calculations required and then by asking for the double entry by use of the adjustment columns of the ETB. Parts (a) to (d) were very well done by most students. The positioning of figures in the ETB to reflect the acquisition, disposal and depreciation was not so confidently completed. Some made incomplete entries, and many omitted the bank adjustment (simple totalling of the columns should have made this obvious). Even students with a correct disposal account in the workings were not always able to make all the correct entries. There is still confusion over this part of the Standards. Many students need to work hard to improve their performance in this area.

Task 2.3

A full profit and loss account was required in this task, and a proforma was not provided. This was to test whether students could accurately extract the correct adjusted balances from task 2.2 and produce a basic profit and loss account. A workings column was provided and this should have been used to show how adjusted figures were calculated, though it was too often ignored (incorrect figures without workings cannot be given any credit). Students were expected to produce a profit and loss account with the correct accounts in good form, showing cost of goods sold, gross profit and net profit. It was pleasing to see many correct or almost correct profit and loss accounts, with good form and accurate figures. The most common errors were omission of the profit on disposal and adjustment for provision for doubtful debts and the inclusion of drawings and the provision for doubtful debts. Where the disposal and provision for doubtful debts adjustments were included, they were not very often in the correct position (that is, included as a deduction from expenses instead of an addition to gross profit) or included as an expense instead of an income, even when labelled “profit on disposal”. A very few students did not show any understanding of what a profit and loss account should look like, for example by simply listing balances.

Task 2.4

For the same reasons, following the profit and loss account a balance sheet was required, also without a proforma. Students were expected to extract the correct adjusted accounts from task 2.2; showing key headings such as fixed assets, current assets, and so on . The performance on this task was also good, though not as strong as the profit and loss account. The provision for doubtful debts was often shown as a liability, and the bank overdraft as a negative current asset. A very few students did not show any understanding of what a balance sheet should look like, for example by simply listing balances.

Task 2.5

This task was designed to test students’ knowledge and understanding of SSAP9 and its application in a practical context. This was a new presentation of data and performance reflected the fact that students were unable to apply their knowledge to a novel situation, which was disappointing. Most students were able to answer (a) correctly or at least express the idea that the “lowest” figure should be taken, but did not then apply that knowledge in (b), by valuing pies at selling price for example, and failing to note that the oldest pies were worthless. Credit was given in (c) and (d) for answers consistent with (b).