

# Exam question paper

The logo for the Association of Accounting Technicians (AAT), consisting of the lowercase letters 'aat' in a white, sans-serif font on a black rectangular background.

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

Monday 16 June 2008 (morning)

Time allowed - 3 hours plus 15 minutes' reading time

**Important:**

This exam paper is in two sections. You should try to complete all tasks in both sections.

We recommend that you use the 15 minutes' reading time to study the exam paper fully and carefully so that you understand what to do for each task. However, you may begin to write your answers within the reading time, if you wish.

We strongly recommend that you use a pen rather than a pencil.

You may not use programmable calculators or dictionaries in the exam.

**Do NOT open this paper until instructed to do so by the Supervisor.**

**MAC**

**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 75 minutes on Section 1 and about 105 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 Insureme Ltd.**

## **Section 1**

**You should spend about 75 minutes on this section.**

### **Data**

- This paper is set in a service industry. The basic accounting principles apply to services in the same way as they apply to manufacturers.
- The unit of output of a service industry can be viewed in the same way as the product of a manufacturer.
- In this case the product of the Underwriting Division is an enquiry or review.

You are employed as an Accounting Technician at Insureme Limited, a company that provides business insurance. The business operates as several divisions. The Underwriting Division deals with enquiries from customers.

The Underwriting Division uses a budgetary control system and has provided the following information in order to prepare the budget for the next 3 months.

#### **Forecast enquiries received**

- Month 1, June 08: 10,000 enquiries per day for each of the 21 working days
- Month 2, July 08: 10,000 enquiries per day for each of the 23 working days
- Month 3, August 08: 5,000 enquiries per day for each of the 21 working days

An enquiry is worked on by one member of staff, an underwriter. Not all enquiries are worked on in the month they are received. Some are carried over to the following month.

The following enquiries are expected to carry over to the start of each month. This means that they will be worked on at the start of the following month, as follows.

- 27,000 enquiries are expected to carry over to June
- 30,000 enquiries from June to July
- 20,000 enquiries from July to August
- 2,000 enquiries from August to September
- The company budgets to review 10% of the enquiries. The review is undertaken on the same day as the enquiry.

**Labour**

- The division employs 350 underwriting staff who are each contracted for a minimum of 140 hours per month.
- The average time to process an enquiry is 15 minutes (0.25 hours).
- A review means that another underwriter checks the enquiry and this also takes 15 minutes (0.25 hours).
- 35 hours paid holiday is taken by each member of staff in August.
- All enquiries are expected to be answered within 3 working days.
- The basic labour rate is £10 per hour and overtime is paid at a premium of 20%.
- Budgeted overtime premium is included as part of the direct labour cost.

**Variable overheads**

- Printing costs are £0.50 per enquiry.
- Postage costs are £0.20 per enquiry.
- There are no additional printing or postage costs if an enquiry is reviewed.
- IT transaction costs are £1.25 for each enquiry and an additional £1.25 for each review.

**Fixed overheads**

- IT costs are £750,000 per month. This is made up of depreciation of £500,000 and the monthly IT maintenance cost of £250,000.
- Buildings costs are £500,000 per month.

**Task 1.1**

Prepare the following information for each of the 3 months to 31 August 2008:

- a budget for the volume of enquiries and reviews, showing the total number of enquiries budgeted to be undertaken in the month and the number of reviews required**
- labour hours required to undertake the total number of enquiries and reviews**
- available hours before overtime**
- overtime hours required**
- labour hours cost budget in £**
- variable overheads cost budget in £**
- fixed overheads cost budget in £**

**Note:**

Calculations should be given to the nearest whole number.

## **Task 1.2**

**The business has undertaken a project in order to investigate alternative ways to process enquiries. The project applied lifecycle costing and discounted cash flow techniques in order to evaluate changes identified.**

**Briefly explain:**

- (a) lifecycle costing and discounted cash flow**
- (b) how these techniques can be applied in a business project.**

## **Data**

The project has resulted in the following:

- Software improvements will reduce the time taken by staff to process enquiries and reviews. The result is that from 1 July the time taken to process enquiries and reviews will fall to an average of 10 minutes for each enquiry or review.
- The software modification has increased the IT transaction cost to £1.50 per enquiry and has incurred a one-off fee of £3 million. The one-off fee is to be depreciated over 5 years.
- The numbers of enquiries for July and August are expected to be 240,000 and 123,000 respectively.
- It has been decided to increase the number of reviews to 20% of the total number of enquiries.
- The number of staff will reduce to 250 from 1 July.

## **Task 1.3**

**Recalculate the following for July and August:**

- (a) volume of enquiries and reviews budget showing the total number of enquiries budgeted to be undertaken in the month and the number of reviews required**
- (b) labour hours required to undertake the total number of enquiries and reviews**
- (c) available hours before overtime**
- (d) overtime hours required**
- (e) labour hours cost budget in £**

## Data

The IT contract provides for annual increases in the cost per transaction and the annual fixed maintenance fee. The index used is the Retail Prices Index excluding Mortgage Interest Payments (RPIX) which stood at 197.4 at the end of May 2008. The current price of £1.50 per transaction and £250,000 per month is based upon the RPIX at the end of May 2007 which was 190.2.

### Task 1.4

- (a) Calculate the transaction cost and monthly maintenance cost from May 2008 based on the RPIX at that date.
- (b) Calculate the percentage increase in the maintenance cost from May 2007 to May 2008.

**Note:**

Please turn over for Section 2.

## Section 2

You should spend about 105 minutes on this section.

### Data

The Commercial Division has recently developed a software solution enabling customers to credit rate companies. The product was developed at a cost of £2 million. The division is considering the selling price of the software and has prepared the following budgeted information.

Selling price	Selling price	
	£500	£2,000
Expected sales in units	4,000	1,500
	£	£
<b>Sales revenue</b>	<b>2,000,000</b>	<b>3,000,000</b>
Cost of sales		
Direct materials	60,000	22,500
Direct labour	20,000	7,500
Fixed overhead	1,200,000	1,200,000
<b>Total cost of sales</b>	<b>1,280,000</b>	<b>1,230,000</b>
<b>Gross profit</b>	<b>720,000</b>	<b>1,770,000</b>
Selling and distribution costs	100,000	500,000
Administration costs	150,000	150,000
Advertising costs	350,000	800,000
<b>Net profit</b>	<b>120,000</b>	<b>320,000</b>
Net assets (including stock and debtors)	2,000,000	2,200,000
Fixed assets	1,500,000	1,500,000

### Task 2.1

(a) Calculate the following performance indicators for the Commercial Division for each pricing option, giving each answer to 2 decimal places:

- (i) gross profit margin
- (ii) net profit margin
- (iii) direct material cost per unit of sales
- (iv) direct labour cost per unit of sales
- (v) fixed cost per unit of sales
- (vi) return on net assets
- (vii) fixed asset turnover

(b) Draft a report for the Commercial Director which briefly explains the following:

- (i) the difference between the gross profit margins for both prices
- (ii) the advantages of setting the price at £2,000
- (iii) why the company may choose to set the price at £500

## Data

Another division, the Claims Division, processes claims from customers. The division operates a standard cost system in which:

- an external loss adjuster is paid a fee to assess the cost of each claim
- direct labour costs are variable
- overheads are fixed and absorbed per claim. The overheads consist of building costs, computer hardware and software costs and supervision costs.

The budgeted activity and actual results for the month of May 2008 are as follows:

		Budget		Actual
Claims processed		2,500		2,000
Loss adjuster costs	2,500 claims	£250,000	2,000 claims	£210,000
Direct labour	8,000 hours	£80,000	9,000 hours	£99,000
Fixed overheads		£150,000		£160,000
Total cost		£480,000		£469,000

## Task 2.2

(a) Calculate the following information for May 2008:

- standard loss adjuster cost (fee) per claim
- standard labour rate per hour
- total standard cost for actual claims

(b) Calculate the following variances for May 2008:

- loss adjuster cost (fee) variance
- direct labour rate variance
- direct labour efficiency variance
- fixed overhead expenditure variance
- fixed overhead volume variance

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

**Note:**

Please turn over for Task 2.3.

## Data

The Claims Director has reviewed the cost variances for May 2008 and is concerned with the adverse variances. He has gathered the following information and has asked you to identify reasons for the variances.

- The company has 3 sizes of claim: below £1,000; between £1,000 and £5,000; and above £5,000.

Size of claim	£1,000 or less	£1,000 - £5,000	Above £5,000	Total number of claims
Budgeted claims	500	750	1250	2,500
Actual claims	360	490	1,150	2,000

- The loss adjuster cost (fee) per claim differs depending on the size of the claim.
- The labour hours per claim vary with the size of claim. The following table shows the budgeted labour time per size of claim.

Size of claim	£1,000 or less	£1,000 - £5,000	Above £5,000
Budgeted labour time	1 hour	2.5 hours	4.5 hours

- There was a shortage of staff in the Claims Division in May resulting in the use of agency staff.

## Task 2.3

(a) Prepare a brief report to the Claims Director giving ONE possible reason for EACH of the following variances:

- (i) loss adjuster cost (fee) variance
- (ii) direct labour rate variance
- (iii) direct labour efficiency variance

(b) Briefly explain how the information on the size of the claim could be used to improve the way overheads and costs are allocated.



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**AAT accounting qualification (Diploma pathway)**

Technician (2003 standards) - 100/2942/4 / G794 24  
Unit number (MAC) – D/103/6451

