8

Specific Order Costing

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8

Learning Outcomes

After completing this chapter, you should be able to:

- compare and contrast job, batch and contract costing;
- prepare ledger accounts for job and batch costing systems;
- prepare ledger accounts for contract costs.

8.1 Introduction

Every organisation will have its own costing system with characteristics which are unique to that particular system. However, although each system might be different, the basic costing method used by the organisation is likely to depend on the type of activity that the organisation is engaged in. The costing system would have the same basic characteristics as the systems of other organisations which are engaged in similar activities.

Specific order costing methods are appropriate for organisations which produce cost units which are separately identifiable from one another. Job costing, batch costing and contract costing are all types of specific order costing that you will learn about in this chapter. In organisations which use these costing methods, each cost unit is different from all others and each has its own unique characteristics.

8.2 Job costing

Job costing applies where work is undertaken according to specific orders from customers to meet their own special requirements. Each order is of relatively short duration. For example, a customer may request the manufacture of a single machine to the customer's own specification. Other examples, this time from service organisations, might be the repair of a vehicle or the preparation of a set of accounts for a client.

The job costing method can also be applied to monitor the costs of internal work done for the organisation's own benefit. For example, job cost sheets can be used to collect the costs of property repairs carried out by the organisation's own employees, or they may be used in the costing of internal capital expenditure jobs.

8.2.1 Job cost sheets and databases

The main feature of a job costing system is the use of a job cost sheet or job card which is a detailed record used to collect the costs of each job. In practice this would probably be a file in a computerised system but the essential feature is that each job would be given a specific job number which identifies it from all other jobs. Costs would be allocated to this number as they are incurred on behalf of the job. Since the sales value of each job can also be separately identified, it is then possible to determine the profit or loss on each job.

The job cost sheet would record details of the job as it proceeds. The items recorded would include:

- job number;
- description of the job; specifications, etc.;
- customer details;
- estimated cost, analysed by cost element;
- selling price, and hence estimated profit;
- delivery date promised;
- actual costs to date, analysed by cost element;
- actual delivery date, once the job is completed;
- sales details, for example, delivery note no., invoice no.

An example of a job cost sheet prepared for a plumbing job is shown in Figure 8.1. This job would have been carried out on the customer's own premises. The sheet has a separate section to record the details of each cost element. There is also a summary section where the actual costs incurred are compared with the original estimate. This helps managers to control costs and to refine their estimating process.

8.2.2 Collecting the direct costs of each job

(a) Direct labour

The correct analysis of labour costs and their attribution to specific jobs depends on the existence of an efficient time recording and analysis system. For example, daily or weekly timesheets may be used to record how each employee's time is spent, using job numbers where appropriate to indicate the time spent on each job. The wages cost can then be charged to specific job numbers (or to overhead costs, if the employee was engaged on indirect tasks). Figure 8.1 shows that a total of nine direct labour hours were worked by two different employees on job number 472. The remainder of the employees' time spent on direct tasks, as analysed on their individual timesheets for the period, will be shown on the job cost sheets for other jobs.

(b) Direct material

All documentation used to record movements of material within the organisation should indicate the job number to which it relates.

For example a material requisition note, which is a formal request for items to be issued from stores, should have a space to record the number of the job for which the material is being requisitioned. If any of this material is returned to stores, then the material returned note should indicate the original job number which is to be credited with the cost of the returned material. Figure 8.1 shows that two separate material requisitions were raised for material used on job number 472.

JOB COST SHEET — Job no.: 472

Estimate no.: 897
Job description: Instal shower Model no. 5856
Details: Mrs. P. Johnson, 01734 692174, 30 Hillside, Whyteham, Price estimate: £330
Date started: 15 June 20×6

MATERIALS					LABOUR						PRODUCTION OVERHEAD		
Date	Req. no.	Qty	Price £	Value £	Date	Emp. no.	Cost ctr	Hrs	Rate	£	Hours	Overhead absorption rate	£
14/6	641	1	128.00	128.00	15/6	17	4	8	10	80.00	9	4.50	40.50
15/6	644	2	3.10	6.20	15/6	12	3	1	10	10.00			
			Total c/f	134.20				Total c/f		90.00		Total c/f	40.50

EXPENSES	
Description	Cost £
Total c/f	

JOB COST SUMMARY		
Cost element	Actual £	Estimate £
Direct materials b/f	134.20	150.00
Direct labour b/f	90.00	80.00
Direct expenses b/f	–	–
Total direct cost	224.20	230.00
Production o/h b/f	40.50	36.00
Total production cost	264.70	266.00
Admin. o/h (5%)	13.24	13.30
Total cost	277.94	279.30
Price estimate	330.00	330.00
Job profit/loss)	52.06	50.70

Job card completed by: 

Figure 8.1 Job cost sheet

Sometimes items of material might be purchased specifically for an individual job, without the material first being delivered to general stores and then requisitioned from stores for the job. In this situation the job number must be recorded on the supplier's invoice or on the relevant cash records. This will ensure that the correct job is charged with the cost of the material purchased.

(c) Direct expenses

Although direct expenses are not as common as direct material and direct labour costs, it is still essential to analyse them and ensure that they are charged against the correct job number.

For example, if a machine is hired to complete a particular job, then this is a direct expense of the job. The supplier's invoice should be coded to ensure that the expense is

charged to the job. Alternatively, if cash is paid, then the cash book analysis will show the job number which is to be charged with the cost. We can see from Figure 8.1 that no direct expenses were incurred on behalf of job number 472.

8.2.3 Attributing overhead costs to jobs

(a) Production overheads

The successful attribution of production overhead costs to cost units depends on the existence of well-defined cost centres and appropriate absorption bases for the overhead costs of each cost centre.

It must be possible to record accurately the units of the absorption base which are applicable to each job. For example if machine hours are to be used as the absorption base, then the number of machine hours spent on each job must be recorded on the job cost sheet. The relevant cost centre absorption rate can then be applied to produce a fair overhead charge for the job.

The production overhead section of the job cost sheet in Figure 8.1 shows that the absorption rate is £4.50 per labour hour. The labour analysis shows that 9 hours were worked on this job, therefore the amount of production overhead absorbed by the job is £40.50.

(b) Non-production overheads

The level of accuracy achieved in attributing costs such as selling, distribution and administration overheads to jobs will depend on the level of cost analysis which an organisation uses.

Many organisations simply use a predetermined percentage to absorb such costs, based on estimated levels of activity for the forthcoming period. The following example will demonstrate how this works.

Example

A company uses a predetermined percentage of production cost to absorb distribution costs into the total cost of its jobs. Based on historical records and an estimate of activity and expenditure levels in the forthcoming period, they have produced the following estimates:

Estimated distribution costs to be incurred	£13,300
Estimated production costs to be incurred on all jobs	£190,000

Therefore, predetermined overhead absorption rate for distribution costs = £13,300/£190,000 × 100% = 7% of production costs

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The plumbing company that has produced the job cost sheet in Figure 8.1 uses a predetermined percentage of five per cent of total production cost to absorb administration overhead into job costs. You can see the calculations in the job cost summary on the sheet.

The use of predetermined rates will lead to the problems of under- or over-absorbed overhead which we discussed in earlier chapters. The rates should therefore be carefully monitored throughout the period to check that they do not require adjusting to more accurately reflect recent trends in costs and activity.

8.2.4 A worked example

The following example will help you to practise presenting a cost analysis for a specific job.

Jobbing Limited manufactures precision tools to its customers' own specifications. The manufacturing operations are divided into three cost centres: A, B and C.

An extract from the company's budget for the forthcoming period shows the following data:

Cost centre	*Budgeted production overhead*	*Basis of production overhead absorption*
A	£38,500	22,000 machine hours
B	£75,088	19,760 machine hours
C	£40,964	41,800 labour hours

Job number 427 was manufactured during the period and its job cost sheet reveals the following information relating to the job:

Direct material requisitioned	£6,780.10
Direct material returned to stores	£39.60

Direct labour recorded against job number 427:

Cost centre A:	146 hours at £4.80 per hour
Cost centre B:	39 hours at £5.70 per hour
Cost centre C:	279 hours at £6.10 per hour

Special machine hired for this job: hire cost £59.00

Machine hours recorded against job number 427:

Cost centre A:	411 hours
Cost centre B:	657 hours
Price quoted and charged to customer, including delivery	£17,200

Jobbing Limited absorbs non-production overhead using the following predetermined overhead absorption rates:

Administration and general overhead	10% of production cost
Selling and distribution overhead	12% of selling price

You are required to present an analysis of the total cost and profit or loss attributable to job number 427.

Solution

First, we need to calculate the predetermined overhead absorption rates for each of the cost centres, using the basis indicated.

$$\text{Cost centre A} = \frac{£38{,}500}{22{,}000} = £1.75 \text{ per machine hour}$$

$$\text{Cost centre B} = \frac{£75{,}088}{19{,}760} = £3.80 \text{ per machine hour}$$

$$\text{Cost centre C} = \frac{£40{,}964}{41{,}800} = £0.98 \text{ per labour hour}$$

Now we can prepare the cost and profit analysis, presenting the data as clearly as possible.

Cost and profit analysis: job number 427	£	£
Direct material (note 1)		6,740.50
Direct labour:		
Cost centre A 146 hours × £4.80	700.80	
Cost centre B 39 hours × £5.70	222.30	
Cost centre C 279 hours × £6.10	1,701.90	
		2,625.00
Direct expenses: hire of machine		59.00
Prime cost		9,424.50
Production overhead absorbed:		
Cost centre A 411 hours × £1.75	719.25	
Cost centre B 657 hours × £3.80	2,496.60	
Cost centre C 279 hours × £0.98	273.42	
		3,489.27
Total production cost		12,913.77
Administration and general overhead (10% × £12,913.77)		1,291.38
Selling and distribution overhead (12% × £17,200)		2,064.00
Total cost		16,269.15
Profit		930.85
Selling price		17,200.00

Note 1
The figure for material requisitioned has been reduced by the amount of returns to give the correct value of the materials actually used for the job.

8.2.5 Preparing ledger accounts for job costing systems

In job costing systems a separate work in progress account is maintained for each job, as well as a summary work in progress control account for all jobs worked on in the period.

The best way to see how this is done is to work carefully through the following exercise and ensure that you understand each entry that is made in every account. You will need to apply the principles of integrated accounts that you learned in the previous chapter.

Exercise 8.1

JC Limited operates a job costing system. All jobs are carried out on JC's own premises and then delivered to customers as soon as they are completed.

Direct employees are paid £10 per hour and production overhead is absorbed into job costs using a predetermined absorption rate of £24 per hour. General overhead is charged to the income statement on completed jobs using a rate of 12 per cent of total production cost.

Details of work done during the latest period are as follows:

Work in progress at beginning of period

Job number 308 was in progress at the beginning of the period.

Job number 308

Cost incurred up to beginning of period:

	£
Direct material	1,790
Direct labour	960
Production overhead absorbed	2,304
Production cost incurred up to beginning of period	5,054

Activity during the period

Job numbers 309 and 310 were commenced during the period.
The following details are available concerning all work done this period.

Job number:	**308**	**309**	**310**
Direct materials issued from stores	£169	£2,153	£452
Excess materials returned to stores	–	£23	–
Direct labour hours worked	82	53	28
Status of job at the end of the period	Completed	Completed	In progress
Invoice value	£9,900	£6,870	–

Cost of material transferred from job 309 to job 310	£43
Production overhead cost incurred on credit	£4,590
General overhead cost incurred on credit	£1,312

Requirements

(a) Prepare the ledger account for the period for each job, showing the production cost of sales transferred on completed jobs.

(b) Prepare the following accounts for the period:

- work in progress control
- production overhead control
- general overhead control
- overhead under- or over-absorbed control
- income statement

(c) Calculate the profit on each of the completed jobs.

Solution

(a) The figures in brackets refer to the explanatory notes below the accounts.

Job 308

	£		£
Balance b/f (1)	5,054	Production cost of sales	8,011
Material stores	169		
Wages control (82 × £10)	820		
Production overhead (82 × £24)	1,968		
	8,011		8,011

Job 309

	£		£
Material stores	2,153	Material stores (2)	23
Wages control (53 × £10)	530	Job 310 (3)	43
Production overhead (53 × £24)	1,272	Production cost of sales	3,889
	3,955		3,955

Job 310

	£		£
Job 309 (3)	43	Balance c/f (4)	1,447
Material stores	452		
Wages control (28 × £10)	280		
Production overhead (28 × £24)	672		
	1,447		1,447

(b)

Work in progress control

	£		£
Balance b/f (1)	5,054	Material stores control (2)	23
Material stores control (5)	2,774	Production cost of sales to income statement (6)	11,900
Wages control (163 hours × £10)	1,630		
Prod'n o'head control (163 × £24)	3,912	Balance c/f (7)	1,447
	13,370		13,370

Production overhead control

	£		£
Payables control (8)	4,590	Work in progress control (9)	3,912
		Overhead under-/over-absorbed control (10)	678
	4,590		4,590

General overhead control

	£		£
Payables control (8)	1,312	General overhead cost to income statement (11)	1,428
Overhead under-/over-absorbed control (10)	116		
	1,428		1,428

Overhead under-/over-absorbed control

	£		£
Production overhead control (10)	678	General overhead control (10)	116
		Income statement	562
	678		678

Income statement

	£		£
Production cost of sales (6)	11,900	Sales (9,900 + 6,870)	16,770
General overhead control (11)	1,428		
Under-absorbed overhead	562		
Profit for the period	2,880		
	16,770		16,770

Notes

1. The cost of the opening work in progress is shown as a brought forward balance in the individual job account and in the work in progress control account.
2. The cost of materials returned to stores is credited in the individual job account and in the work in progress control account.
3. The cost of materials transferred between jobs is credited to the job from which the material is transferred and debited to the job that actually uses the material.
4. Job 310 is incomplete. The production cost incurred this period is carried down as an opening work in progress balance for next period.
5. The total cost of all materials issued is debited to the work in progress control account.
6. The production cost of both completed jobs (£3,889 + £8,011) is transferred to the income statement.
7. The balance carried forward to next period is the cost of the work in progress represented by job 310.
8. The overhead cost incurred is debited in the control account.
9. The production overhead absorbed into work in progress is credited to the overhead control account.
10. Production overhead is under-absorbed and general overhead is over-absorbed this period.
11. The general overhead cost charged to the income statement on completed jobs = 12% × £(3,889 + 8,011) = £1,428

(c)

	Job 308	Job 309
	£	£
Production cost	8,011.00	3,889.00
General overhead absorbed at 12%	961.32	466.68
	8,972.32	4,355.68
Invoice value	9,900.00	6,870.00
Profit	927.68	2,514.32

The total profit on the two jobs is £3,442. The difference of £562 between this total and the profit shown in the income statement is the result of the under-absorbed overhead of £562.

8.3 Batch costing

The CIMA *Terminology* defines a batch as a 'group of similar units which maintains its identity throughout one or more stages of production and is treated as a cost unit'. Examples include a batch of manufactured shoes or a batch of programmes printed for a local fete.

You can probably see that a batch is very similar in nature to the jobs which we have been studying so far in this chapter. It is a separately identifiable cost unit for which it is possible to collect and monitor the costs.

The job costing method can therefore be applied in costing batches. The only difference is that a number of items are being costed together as a single unit, instead of a single item or service.

Once the cost of the batch has been determined, the cost per item within the batch can be calculated by dividing the total cost by the number of items produced.

Batch costing can be applied in many situations, including the manufacture of furniture, clothing and components. It can also be applied when manufacturing is carried out for the organisation's own internal purposes, for example, in the production of a batch of components to be used in production.

8.3.1 Example: batch costing

Needlecraft Limited makes hand embroidered sweat shirts to customer specifications.

The following detail is available from the company's budget.

Cost centre	*Budgeted overheads*	*Budgeted activity*
Cutting and sewing	£93,000	37,200 machine hours
Embroidering and packing	£64,000	16,000 direct labour hours

Administration, selling and distribution overhead is absorbed into batch costs at a rate of 8 per cent of total production cost. Selling prices are set to achieve a rate of return of 15 per cent of the selling price.

An order for 45 shirts, Batch No. 92, has been produced for Shaldene Community Choir. Details of activity on this batch are as follows:

Direct materials	£113.90
Direct labour	
Cutting and sewing 0.5 labour hours at £9 per hour	£4.50
Embroidering and packing 29 labour hours at £11 per hour	£319.00
Machine hours worked in cutting and sewing	2
Fee paid to designer of logo for sweat shirts	£140.00

Required

Calculate the selling price per shirt in Batch No. 92.

Solution

Batch No. 92

	£	£
Direct material		113.90
Direct labour:		
Cutting and sewing	4.50	
Embroidering and packing	319.00	
		323.50
Direct expense: design costs		140.00
Total direct cost		577.40
Production overhead absorbed:		
Cutting and sewing (Wl) 2 machine hours × £2.50	5.00	
Embroidering and packing (W1) 29 labour hours × £4	116.00	
		121.00
Total production cost		698.40
Administration, etc. overhead £698.40 × 8%		55.87
Total cost		754.27
Profit margin 15/85 × £754.27		133.11
Total selling price of batch		887.38
Selling price per shirt £887.38/45		£19.72

Workings

Calculation of production overhead absorption rates:

Cutting and sewing = £93,000/37,200 = £2.50 per machine hour
Embroidering and packing = £64,000/16,000 = £4 per direct labour hour

8.4 Contract costing

Contract costing is another form of specific order costing. It is usually applied to construction contracts which are of relatively long duration in comparison with the jobs and batches which we have so far considered. The contracts are undertaken according to specific customer requirements and they are usually carried out on sites away from the organisation's own premises. Contract costing can be used in bridge-building, tunnel construction, motorway construction, shipbuilding and similar long-term works.

8.4.1 Architect's certificates and progress payments

Because of the long-term nature of building work, it is usual for the contract to provide for the customer to make payments as the contract proceeds. These interim payments are known as progress payments.

A surveyor or architect will visit the contract at various stages of its completion. Having inspected the progress of the work, the architect will issue a certificate which states the sales value of the work which has been completed to date. An appropriate invoice can then be sent to the customer, with a copy of the architect's certificate attached to verify the value of the work certified.

8.4.2 Retention money

The contract will usually provide for the customer to pay only a percentage of the value of the work certified. The balance which is not paid is called retention money. The retention percentage varies depending on the terms of the contract, but it is often about 10 per cent of the certified value. The customer retains this amount until an agreed time after the contract is completed, to guard against monetary loss due to unforeseen circumstances arising.

8.4.3 Contract accounts

The objective of contract costing is much the same as that of job costing. The costs of each contract must be systematically collected and monitored. For this purpose a separate account is maintained for each contract. All of the costs of the contract are collected in the account, which can then be used to assist in determining the contract profit.

The long-term nature of contracts means that they often span more than one accounting period. If a contract is still in progress at the end of the company's financial year, then it is necessary to value the contract work in progress for balance sheet purposes. In addition a calculation is performed to determine how much profit has been earned on the contract during the year and this amount is credited to the total company's income statement for the year. The profit on a contract is thus recognised in stages as the contract progresses, instead of waiting until the contract is completed to recognise any profit.

The reason for this is to attempt to present a true and fair view of the company's performance. It avoids the excessive fluctuations in reported profits which may arise if profits are recognised only when contracts are completed. For example, if several contracts were completed in one year, then the reported profits would be very high. In the next year there may be no contracts completed at all and excessive losses would be reported. Anybody who was trying to use the company's accounts to assess its performance would find it very

difficult to make any judgements based on such wildly fluctuating reported profits. Reporting the profits as the contract progresses helps to smooth out these fluctuations.

8.4.4 Accounting for contract materials

Materials delivered to the contract site could come from the organisation's own stores or they could be delivered direct to the site by the supplier. In both cases, the movement of the materials must be carefully documented so that the correct contract is charged with the receipt of the materials. The contract account would be debited with the cost of the materials delivered. If any material is returned to stores or to the supplier, then the necessary documentation would be raised and the cost of these materials would be credited to the contract account.

At the end of the accounting period there will often be some material still on site which is to be used in the next period. The cost of this material will be credited to the contract account for the period and carried down as a debit balance at the start of the next period.

8.4.5 Accounting for plant used on the contract

Various types of heavy plant are used on building contracts, for example cranes, bulldozers and cement mixers. The plant is often transferred from one contract to another as it is needed. As with the movements of materials, it is important that plant movements are carefully documented and controlled. The objective is to ensure that the contract receives a fair charge for the depreciation of the plant while it has been used on the contract. There are two main ways in which this can be accomplished.

(1) Valuing the plant on transfer

With this method the plant is valued when it is transferred to the contract and this amount is debited to the contract account. The plant is then valued again when it is transferred from the contract and the value is credited to the contract account. The difference between these two amounts represents the depreciation which has been charged to the contract.

If the plant is still in use on the contract at the end of an accounting period, then the value of the plant remaining on site is credited to the account and carried forward as a debit balance into the next period. In this way, each accounting period will receive a fair charge for plant depreciation.

(2) Calculating the depreciation charge

With this method the contract is simply charged a proportion of the annual depreciation for the plant, depending on the length of time it was used on the contract. This method would be more appropriate for a plant which is moved frequently and which does not stay on any one contract for a long time.

8.4.6 Cost classification in contract costing

An important point to appreciate is that, because of the nature of the work undertaken when contract costing is applied, many costs that would in most circumstances be indirect costs are, in fact, direct costs of the contract.

Contract work is usually undertaken on a large scale at the customer's own premises – for example, when building a hospital or constructing a new road. Each contract will often be

large enough to merit the employment of a full-time supervisor and perhaps the installation of its own telephone line and electricity services. This means that costs such as supervisors' salaries and telephone and electricity expenses would be a direct cost of the contract, because they can be specifically identified with it. Contrast this with the more common situation, with other costing methods, where these items are classified as indirect costs and it is necessary to attribute them as fairly as possible to several different cost centres or cost units.

8.4.7 Calculating contract profit and preparing balance sheet entries

When calculating the profit to be recognised on uncompleted contracts, it is essential that the requirements of the prudence concept are adhered to, that is, that profits are not overstated and a conservative view is taken. Indeed if a loss is foreseen on completion of the project, then the whole of the future loss should be taken into account as soon as possible.

The best way to see how contract costing works is to study it in the context of the following example.

8.4.8 Contract costing: a worked example

On 3 January, year 8, B Construction Ltd started work on the construction of an office block for a contracted price of £750,000 with completion promised by 31 March, year 9. The construction company's financial year end was 31 October, year 8, and on that date the accounts appropriate to the contract contained the following balances:

	£000
Materials issued to site	161
Materials returned from site	14
Wages paid	68
Own plant in use on site, at cost	96
Hire of plant and scaffolding	72
Supervisory staff:	
direct	10
indirect	12
Head office charges	63
Cash received related to work certified	330
Estimated cost to complete contract	240

Depreciation on own plant to be provided at the rate of 12.5 per cent per annum on cost. £2,000 is owing for wages.

Estimated value of materials on site is £24,000.

No difficulties are envisaged during the remaining time to complete the contract.

You are required to:

(a) prepare the contract account for the period ended 31 October, year 8, and show the amount to be included in the construction company's income statement for that period;

(b) show extracts from the construction company's balance sheet at 31 October, year 8, so far as the information provided will allow.

Solution

The first thing that we need to know is the total cost incurred on the contract in the period.

A contract account is used to collect the costs incurred. Work carefully through the entries in the account below.

The figures in brackets refer to the explanatory notes which follow the account.

Office block contract account to 31 October, year 8

	£000		*£000*
Materials issued	161	Material returned (2)	14
Wages paid	68	Materials on site c/d (4)	24
Plant at cost (1)	96	Plant on site c/d (1)	86
Hire of plant and scaffolding	72	Cost to date c/d (5)	360
Supervisory staff:			
direct	10		
indirect	12		
Head office charges	63		
Wages accrued c/d (3)	2		
	484		484

Notice that the cash received from the customer is not entered in the contract account. This is not an item of cost information.

Office block contract account from 1 November, year 8

	£000		*£000*
Material on site b/d (4)	24	Wages accrued b/d	2
Plant on site b/d (1)	86		
Cost to date (5)	360		

At the start of the next financial year the account contains all of the brought-forward balances from the previous year.

Explanatory notes

1. *Depreciation of plant*. As explained earlier in this chapter, the depreciation charge can be calculated and charged to the contract, or the remaining value of plant on site can be carried forward into the next period. The net effect is the same, but in this example it seems more logical to show the value of the plant carried forward, to reflect the continuing nature of the contract.

   Make sure that you do not make the common mistake of including the value of the plant *and* the depreciation charge. This would be double-counting.

	£000
Value of plant delivered to site	96
Depreciation while in use:	
10/12 × (£96,000 × 12.5%)	10
Value of plant carried down to next period	86

Did you notice that the plant was in use for only ten months of the year, *not* for the whole year?

The net effect of the debit of £96,000 and the credit of £86,000, in the contract account to 31 October, is to charge the correct amount of £10,000 for depreciation.

2. *Materials returned.* The materials returned from the site are credited to the contract and debited to the central stores account.
3. *Wages accrued.* This entry ensures that the correct amount is charged for wages in the period. The credit entry is carried down into the account for next period. Therefore when the wages are actually paid next period, the credit entry brought down will be netted against the payment and there will be no effect on next period's costs.
4. *Materials on site.* These materials have not yet been used and their cost is carried down into the next period. If this was not done, then the cost of the work for the period would be overstated.
5. *Cost to date.* Now that all of the adjustments have been made to carry forward the costs that do not relate to this period, the balance on the account must be the cost incurred to date.

Before any profit can be recognised on a contract, two questions must be asked:

1. *Are any losses evident on this contract?* If a loss is foreseen on completion of the contract, then all of the foreseen loss must be recognised now. The answer to this question is 'no', and we can proceed to the second question.
2. *Are any difficulties foreseen?* It may be possible to foresee difficulties arising during the remaining time to complete the contract. These difficulties may not actually result in losses, but any costs should be provided for in full as soon as they are foreseen. In this example there are no difficulties envisaged.

Since the answer to both these questions is 'no', it seems reasonable to proceed and calculate an amount of profit to be recognised in B Construction Ltd's accounts for the year ending 31 October, year 8. Later in this chapter you will see how to deal with the situations when the answers to these questions are 'yes'.

The amount of profit to be recognised on the contract will depend on its degree of completion. Two common formulae that might be used to calculate the profit to be recognised are based on the cost incurred to date or on the revenue earned to date as follows:

$$\text{Profit to be recognised} = \text{estimated final profit on contract} \times \frac{\text{cost incurred to date}}{\text{estimated final contract cost}}$$

or

$$\text{Profit to be recognised} = \text{estimated final profit on contract} \times \frac{\text{revenue earned to date}}{\text{estimated final contract revenue}}$$

Many different methods could be used to determine the amount of profit to be recognised. The most important thing from the point of view of the assessment is to read the question carefully to check what information is available and follow any instructions given concerning the calculation of profit.

In this example we will determine the degree of completion by reference to the cost incurred to date as a proportion of the estimated final contract cost.

	£	£
Contracted price		750,000
Cost incurred to date	360,000	
Estimated cost to complete contract	240,000	
Estimated final contract cost		600,000
Estimated final profit on contract		150,000

Stage of completion = cost incurred to date/estimated final contract cost
= 360,000 / 600,000 = 60%

Profit to be recognised on contract = £150,000 × 60% = £90,000

This is an acceptable solution to the remainder of part (a) in our example: the amount to be included in the construction company's income statement for the period ended 31 October, year 8 is £90,000. This would affect the construction company's accounts as follows:

	£
Revenue to be credited to income statement (£750,000 × 60%)	450,000
Cost to be charged to income statement (£600,000 × 60%)	360,000
Profit recognised	90,000

Now you need to learn how to deal with part (b) of the question: showing the relevant extracts from the company's balance sheet.

There will be three items in the company's balance sheet in respect of this contract. (Figures in brackets refer to the explanatory notes which follow.)

(a) The receivable account for the contract

The receivable account for the contract will look like this:

Office block contract account receivable

	£000		*£000*
Sales (1)	450	Bank (2)	330
		Balance c/d	120
	450		450

Explanatory notes

1. The revenue of £450,000, as calculated above, will be credited to the sales account and debited to the receivable account.
2. The cash received related to the work certified, as specified in the question data, will be debited to the bank account and credited to the receivable account.

The balance of £120,000 on the receivable account will be shown within receivables on the company's balance sheet.

The other balance sheet extracts will relate to the remaining balances brought down on the contract account which you saw earlier, excluding the £360,000 cost which has been transferred to the income statement.

Office block contract account from 1 November, year 8

	£000		*£000*
Material on site b/d	24	Wages accrued b/d	2
Plant on site b/d	86		

(b) The plant on site

The £86,000 book value of the plant on site will be shown under non-current assets on the balance sheet.

(c) The other contract balances

The remaining balances of material inventory £24,000 and wages accrued £2,000 will be shown on the company's balance sheet as an asset and a liability, respectively.

8.4.9 Accounting for a loss-making contract

If a loss is foreseen on the contract, then the whole of the loss should be recognised immediately, even if revenues received exceed the costs to date.

Suppose that because of problems envisaged before completion, the estimated costs to complete the office block contract are £410,000. A loss can be foreseen on the contract as follows:

	£	£
Contracted price		750,000
Cost incurred to date	360,000	
Estimated cost to complete contract	410,000	
Estimated final contract cost		770,000
Estimated final loss on contract		(20,000)

The whole of the loss would be recognised immediately and the effect on the income statement would be as follows. For demonstration purposes we will use the same degree of completion as before.

	£
Revenue to be credited to income statement (£750,000 × 60%)	450,000
Cost to be charged to income statement (£600,000 × 60%)	(360,000)
Provision for future losses (balancing figure)	(110,000)
Contract loss	(20,000)

The relevant ledger accounts would look like this:

Office block contract receivable

	£000		*£000*
Sales	450	Bank	330
		Balance c/d	120
	450		450

Company cost of sales account (extract)

	£000		*£000*
Office block contract:			
Cost of work completed	360		
Provision for losses	110		
	470		

Provision for contract losses

	£000		*£000*
		Cost of sales	110

8.4.10 Contract costing: a second example

Work carefully through this next example, checking that you understand all the workings.

E Ltd, a construction company, has two sites on which it is building residential homes. Site A was started on 1 November year 4 and is expected to be completed by 30 June year 6. Site B was started on 1 October year 5 and is not due for completion until 30 April year 7.

The company's financial year ends on 31 December.

The following details relate to the contracts as at 31 December year 5.

	Site A	*Site B*
	£000	*£000*
Work in progress (1 January year 5)	51	
Materials sent to site	193	63
Materials returned from site	11	3
Plant sent to site	75	40
Material on site (31 December year 5)	6	25
Direct wages paid	142	48
Other site expenses paid	46	13
Cash received from clients	475	38

Notes:

1. The plant was sent to site at the commencement of the contract. For site A, the value shown is its net book value at 1 January year 5 and for site B, the value shown is that at the commencement of the contract. Depreciation is to be provided using the reducing balance method at an annual rate of 20 per cent.
2. At 31 December year 5 there were wages outstanding of £2,000 at site A and £1,000 at site B.
3. The cash received from clients represents the value of work certified and invoiced less an agreed retention of 5 per cent.
4. The total contract prices are £600,000 for site A and £400,000 for site B.

5. The estimated costs to complete the work at the sites is £110,000 at site A and £240,000 at site B.
6. No profit was recognised in respect of site A in the financial year ended 31 December year 4.

Solution

The first step is to prepare a contract account for each of the sites. For ease of presentation our solution shows the accounts side by side in a columnar format.

Contract accounts to 31 December year 5

	A *£000*	*B* *£000*		*A* *£000*	*B* *£000*
Work in progress b/d	51		Materials returned from site	11	3
Materials sent to site	193	63	Material on site c/d	6	25
Plant sent to site	75	40	Plant on site c/d (see note)	60	38
Direct wages paid	142	48	Cost incurred to date	432	99
Other site expenses paid	46	13			
Wages accrued c/d	2	1			
	509	165		509	165

Note: Depreciation of plant

Site A = £75,000 × 20% = £15,000

Value of plant on site c/d = £75,000 − £15,000 = £60,000

$$\text{Site B} = £40{,}000 \times 20\% \times \frac{3}{12} = £2{,}000$$

Value of plant on site c/d = £40,000 − £2,000 = £38,000

Note that the plant is in use at site B for only 3 months.

The next step is to calculate the profit to be taken on each contract.

The degree of completion can be measured using either sales values or costs.

	Site A	*Site B*
Using sales values		
Value certified (note 1):		
$£475{,}000 \times \frac{100}{95}$	£500,000	
$£38{,}000 \times \frac{100}{95}$		£40,000
Contract price	£600,000	£400,000
Degree of completion:		
$\frac{500}{600}$	83.3%	
$\frac{40}{400}$		10.0%
Using cost values		
Cost incurred/estimated total cost (note 2):		
$\frac{£432{,}000}{£542{,}000}$	79.7%	
$\frac{£99{,}000}{£339{,}000}$		29.2%

Notes

1. The agreed retention is 5 per cent. Therefore, the cash received from clients is multiplied by $\frac{100}{95}$ to determine the value certified.
2.

	Site A	*Site B*
	£000	*£000*
Estimated total costs:		
costs incurred to date	432	99
estimated costs to complete	110	240
	542	339

You can see that there is a difference in the estimated degree of completion calculated using each method. Whichever method is used it must be applied consistently.

You can also see that the degree of completion at site B is small. Therefore, it is not prudent to recognise any profit on this contract at this stage. As a general guide, no profit should be recognised until a contract is at least 30 per cent complete.

For contract A, the profit to be recognised is as follows:

	Site A
	£000
Contract price	600
Estimated total cost	542
Estimated final profit on contract	58
Degree of completion*: ×79.7%	
Profit to be recognised = £46,000	(to the nearest £000)

*The most prudent figure is taken for degree of completion (i.e. the lowest figure).

This would affect E Ltd's accounts as follows:

	Site A	*Site B*
	£000	*£000*
Cost to be charged to income statement (542 × 79.7%)	432	44
Profit to be recognised	46	–
Revenue to be credited to income statement (600 × 79.7%)	478	44

Contract accounts receivable

	Site A	*Site B*		*Site A*	*Site B*
	£000	*£000*		*£000*	*£000*
Sales	478	44	Bank	475	38
			Balance c/d	3	6
	478	44		478	44

Balance sheet extracts

	Site A	*Site B*	*Total*
	£000	*£000*	*£000*
Material on site	6	25	31
Receivables	3	6	9
Contract in progress (site B = 99 cost incurred less 44 transferred to income statement)		55	55
Plant on site	60	38	98

8.4.11 Contract costing: a final example

Try to produce your own answer to this example before you read the solution.

S Ltd is building an extension to a local factory. The agreed contract price is £300,000. The contract commenced on 1 March year 2 and is scheduled for completion on 30 June year 3.

S Ltd's financial year ends on 31 December.

The following details are available concerning the factory contract as at 31 December year 2.

	£000
Materials sent to site from central stores	15
Materials delivered to site direct from suppliers	70
Plant delivered to site (net book value)	40
Direct wages paid	85
Direct site expenses paid	38
Head office charges	12
Material returned from site to central stores	6
Net book value of plant on site, 31 December year 2	32
Materials on site, 31 December year 2	4
Direct wages owing at 31 December year 2	3
Cash received from customer	207
Estimated cost to complete the contract	119

You are required to prepare the contract account for the period ended 31 December year 2, and to show the amount to be included in S Ltd's income statement in respect of the contract for that period.

Solution

Factory extension contract account to 31 December, year 2

	£000		*£000*
Materials from stores	15	Materials returned to stores	6
Materials from suppliers	70	Plant on site c/d	32
Plant delivered to site	40	Material on site c/d	4
Direct wages paid	85	Cost of work to date (balancing figure)	221
Direct site expenses paid	38		
Head office charges	12		
Wages accrued c/d	3		
	263		263
Plant on site b/d	32	Wages accrued b/d	3
Materials on site b/d	4		

In order to decide whether a profit should be recognised on the contract we will refer to the questions detailed in Section 8.4.8.

1. *Are any losses evident on the contract?* Yes, the following calculation shows that a loss is foreseen, therefore the whole of the future loss should be taken into account now.

	£000
Cost of work to date (from contract account)	221
Estimated cost to complete the contract	119
Total cost of contract	340
Agreed contract price	300
Expected loss on contract	(40)

The charge to cost of sales must allow for the full amount of the loss.

The degree of completion of the contract, based on the costs incurred to date as a percentage of the final contract cost, is 221/340 = 65%.

The sales revenue and cost of sales in the income statement are therefore as follows.

	£
Revenue to be credited to income statement (£300,000 × 65%)	195,000
Cost to be charged to income statement (£340,000 × 65%)	(221,000)
Provision for future losses (balancing figure)	(14,000)
Contract loss	(40,000)

8.5 Summary

Having read this chapter the main points that you should understand are as follows:

1. Specific order costing methods are appropriate for organisations that produce cost units which are separately identifiable from each other. Job costing, batch costing and contract costing are all specific order costing methods.
2. Job costing applies where work is undertaken according to individual customer requirements. Each job is of relatively short duration and may be undertaken on the customer's premises or on the contractor's premises.
3. Contract costing also applies where work is undertaken according to individual customer requirements, but each contract is usually of longer duration. Contracts frequently span more than one accounting period and are often constructional in nature.
4. Batch costing is a form of job costing where each batch of similar items is a separately identifiable cost unit.
5. In a job costing system, each job is given a unique number and the costs of each job are collected and analysed on a job cost sheet.
6. As a contract progresses the work completed is certified at various stages by an architect and the customer will make progress payments to the contractor. The customer might not pay the full amount of the value certified because retention monies are often held in case unforeseen circumstances arise.
7. In order to avoid wide fluctuations in reported profits an estimate may be made of the profit earned on an incomplete contract to date and this profit may be recognised in the contractor's income statement.
8. Profit may be recognised on an incomplete contract as long as its outcome can be reasonably foreseen and no adverse circumstances are expected. If a loss is expected on a contract then the whole of the loss must be provided for immediately.

Revision Questions

8

Question 1 Multiple choice

1.1 Which of the following are characteristics of job costing?

(i) Customer-driven production.
(ii) Complete production possible within a single accounting period.
(iii) Homogeneous products.

(A) (i) and (ii) only.
(B) (i) and (iii) only.
(C) (ii) and (iii) only.
(D) All of them.

1.2 Which of the following are characteristics of contract costing?

(i) Homogeneous products.
(ii) Customer-driven production.
(iii) Short timescale from commencement to completion of the cost unit.

(A) (i) and (ii) only.
(B) (ii) and (iii) only.
(C) (i) and (iii) only.
(D) (ii) only.

1.3 The following items may be used in costing jobs:

(i) Actual material cost.
(ii) Actual manufacturing overheads.
(iii) Absorbed manufacturing overheads.
(iv) Actual labour cost.

Which of the above are contained in a typical job cost?

(A) (i), (ii) and (iv) only.
(B) (i) and (iv) only.
(C) (i), (iii) and (iv) only.
(D) All four of them.

Data for questions 1.4 and 1.5

A firm uses job costing and recovers overheads on direct labour cost.
Three jobs were worked on during a period, the details of which were:

	Job 1	*Job 2*	*Job 3*
	£	£	£
Opening work-in-progress	8,500	0	46,000
Material in period	17,150	29,025	0
Labour for period	12,500	23,000	4,500

The overheads for the period were exactly as budgeted: £140,000.

1.4 Jobs 1 and 2 were the only incomplete jobs. What was the value of closing work in progress?

(A) £81,900
(B) £90,175
(C) £140,675
(D) £214,425

1.5 Job 3 was completed during the period and consisted of a batch of 2,400 identical circuit boards. The firm adds 50 per cent to total production costs to arrive at a selling price. What is the selling price of a circuit board?

(A) It cannot be calculated without more information.
(B) £31.56
(C) £41.41
(D) £58.33

1.6 BH Ltd is currently undertaking a contract to build an apartment block. The contract commenced on 1 January year 2 and is expected to take 13 months to complete. The contract value is £54 m. The contractor's financial year ends on 30 September.

The contract account for the building of the apartment block indicates the following situation at 30 September year 2:

Value of work certified	£30 m
Costs incurred to date	£20 m
Future costs to completion	£20 m

The amount of profits to be recognised is based on the cost incurred to date. It is company policy not to recognise profit on contracts unless the cost incurred is at least 30 per cent of the total contract cost.

The maximum amount of profit 5 loss for the contract that can be taken to the income statement for the year ended 30 September year 2 is:

(A) Nil
(B) £5 m
(C) £7 m
(D) £10 m.

Question 2 Short objective-test questions

2.1 Match the organisational activities below to the most appropriate costing method by writing (a), (b) or (c) in the box provided.

Costing methods

(a) Job costing
(b) Batch costing
(c) Contract costing

Organisational activities

- Accounting and taxation services ☐
- Shoe manufacturing ☐
- Plumbing and heating repairs ☐
- Road building ☐
- Building maintenance and repairs ☐

2.2 Calculate the selling price for each job (a) to (c) (to the nearest penny), and write the correct answer in the box provided.

(a) Total cost of job = £45. Profit mark-up = 25 per cent of cost. Job selling price = £ ☐.
(b) Production cost of job = £38. Percentage to be added to production cost to absorb general overheads = 10 per cent. Profit mark-up = 20 per cent of total cost. Job selling price = £ ☐.
(c) Total cost of job = £75. Profit margin = 15 per cent of selling price. Job selling price = £ ☐.

2.3 Is the following sentence *true* or *false?* Tick the correct box.

Interim payments that are received from a customer as a contract progresses are known as retention monies.

True ☐
False ☐

2.4 A plant with a net book value of £40,000 is delivered to contract ZX on 31 March. The plant is still in use on the contract at the company's year end, 31 December. Company policy is to depreciate all contract plant on a reducing balance basis, at a rate of 25 per cent per annum.

Complete the box in the contract account to show how the plant would be accounted for.

Contract ZX [extract]

		£			£
31 Mar.	Plant delivered to contract	40,000	31 Dec.	Plant c/d	☐

2.5 The cost incurred on contract D372 to date is £465,000. The cost to be incurred to complete the contract is £116,250 and no problems are foreseen before its completion. The value of work certified is £545,000 and the cash received from the

customer is £517,750. The final contract value is £640,000. The profit to be recognised on the contract is to be calculated as follows:

$$\text{Profit to be recognised} = \text{Final contract profit} \times \frac{\text{cost incurred to date}}{\text{final contract cost}}$$

The revenue to be credited to the company income statement in respect of contract D372 is £ ☐.

2.6 A company calculates the prices of jobs by adding overheads to the prime cost and adding 30 per cent to total costs as a profit margin. Complete the following job cost summary information:

Job Y256	£
Prime cost	☐
Overheads	694
Total cost	☐
Profit margin	☐
Selling price	1,690

2.7 A particular contract has earned a nominal profit to date but the contract overall is expected to incur a loss by the time it is completed. The loss should not be recognised in the accounts until the period when the loss actually occurs.

True ☐
False ☐

2.8 A commercial decorating organisation budgets for 4 per cent idle time on all its jobs.

The estimated number of active labour hours required to complete decorating job no. D47 is 120 hours. The hourly labour rate is £11.

The estimated labour cost of job no. D47 is (to the nearest £) £ ☐.

Question 3 Batch costing

Jetprint Ltd specialises in printing advertising leaflets and is in the process of preparing its price list. The most popular requirement is for a folded leaflet made from a single sheet of A4 paper. From past records and budgeted figures, the following data has been estimated for a typical batch of 10,000 leaflets.

Artwork	£65
Machine setting	4 hours at £22 per hour
Paper	£12.50 per 1,000 sheets
Ink and consumables	£40
Printers' wages	4 hours at £8 per hour (*Note*: Printers' wages vary with volume.)

General fixed overheads are £15,000 per period, during which a total of 600 labour hours are expected to be worked.

The firm wishes to achieve 30 per cent profit on sales.

Requirements

(a) The selling prices (*to the nearest pound*) per thousand leaflets for quantities of:

(i) 10,000 leaflets is £ ☐
(ii) 20,000 leaflets is £ ☐

(b) During the period, the firm printed and sold 64 batches of 10,000 leaflets and 36 batches of 20,000 leaflets. All costs were as expected.

(i) General fixed overhead for the period was (tick the correct box):

☐ under-absorbed
☐ over-absorbed

(ii) The value of the under-/over-absorption of general fixed overhead was £ ☐.

Question 4 Contract costing

HR Construction plc makes up its accounts to 31 March each year. The following details have been extracted in relation to two of its contracts as at 31 March 20×5:

	Contract A	*Contract B*
Commencement date	1 April 20×4	1 December 20×4
Target completion date	31 May 20×5	30 June 20×5
	£000	*£000*
Contract price	2,000	550
Materials sent to site	700	150
Materials returned to stores	80	30
Plant sent to site	1,000	150
Materials transferred to contract B	40	–
Materials transferred from contract A	–	40
Materials on site 31 March 20×5	75	15
Cost incurred to date	1,200	406
Estimated additional cost to completion	400	174

Depreciation is charged on plant using the straight-line method at the rate of 12 per cent p.a.

Requirements

(a) The net book value of the plant on site at 31 March 20×5 is:

(i) Contract A: £ ☐
(ii) Contract B: £ ☐

(b) The total cost of materials for the contracts to 31 March 20×5 is:

(i) Contract A: £ ☐
(ii) Contract B: £ ☐

(c) HR's policy is to recognise profit on uncompleted contracts as:

$$\text{Estimated total contract profit} \times \frac{\text{Cost incurred}}{\text{Estimated total contract cost}}$$

(i) The profit to be recognised on contract A to date is £ ☐

(ii) The charge to the income statement as a provision for future losses in respect of contract B is £ ☐

Solutions to Revision Questions

8

Solution 1

- If you are reduced to guessing the answer to a multiple-choice question, remember to eliminate first those answers that you know to be incorrect. Then, select an answer from the remaining options. This technique would be particularly useful for questions 1.1 and 1.2.
- In question 1.5 read the information you are given carefully to determine whether the profit percentage is calculated as a percentage of cost or as a percentage of selling price.

1.1 Answer: (A)

Job costing applies to situations where work is carried out to customer specifications, and each order is of relatively short duration. Each job is separately identifiable, therefore characteristic (iii) is incorrect.

1.2 Answer: (D)

Contract costing applies to situations where work is carried out to customer specifications, and typically each contract takes more than one year to complete. Thus, only (ii) is correct.

1.3 Answer: (C)

Overheads are absorbed into the cost of each job as the period progresses, using a predetermined overhead absorption rate. It is not usually possible to identify the actual overhead cost for each individual job – therefore option A is incorrect. Option (B) is incorrect because it does not include any overhead cost. Option (D) is incorrect because it includes a double charge for overhead.

1.4 Answer: (D)

$$\text{Overhead absorption rate} = \frac{£140{,}000}{£40{,}000} \times 100\% = 350\% \text{ of direct labour.}$$

Work in progress valuation	£	£
Costs given in question:		
Job 1	38,150	
Job 2	52,025	
		90,175
Overhead absorbed:		
Job 1 £12,500 × 350%	43,750	
Job 2 £23,000 × 350%	80,500	
		124,250
		214,425

1.5 Answer: (C)

	£
Costs given in question	50,500
Overhead absorbed: £4,500 × 350%	15,750
Total production cost	66,250
Mark up 50%	33,125
Sales value of batch	99,375

Selling price per circuit board $\left(\frac{99{,}375}{2{,}400}\right)$ = £41.41.

1.6 Answer: (C)

The cost incurred is more than 30 per cent of the total contract cost therefore a profit can be recognised on this contract. The maximum amount of profit that might be recognised at 30 September is as follows:

	£*m*
Contract value	54
Less:	
Costs to date	(20)
Future costs	(20)
Expected profit	14

Profit to be recognised = £14 m × (£20 m/£40 m) = £7 m.

Solution 2

2.1

- Accounting and taxation services (a)
- Shoe manufacturing (b)
- Plumbing and heating repairs (a)
- Road building (c)
- Building maintenance and repairs (a) (the cost units are probably of relatively short duration)

2.2 (a) £45 + 25% = £56.25

(b) £38 + 10% = £41.80 total cost + 20% = £50.16

(c) Note that the margin is expressed as a percentage of selling price:

$$£75 \times \frac{100}{85} = £88.24$$

2.3 *False*. This is a description of progress payments.

2.4

CONTRACT ZX (extract)

		£			£
31 Mar.	Plant delivered to contract	40,000	31 Dec.	Plant c/d*	32,500

*Depreciation for 9 months = $£40{,}000 \times 25\% \times \frac{9}{12} = £7{,}500$

∴ Net book value of plant at 31 December = £40,000 − £7,500 = £32,5000

2.5 The revenue to be credited to the company income statement in respect of contract D372 is £512,000. The contract is 80 per cent complete and no problems are foreseen, therefore it is acceptable to recognise a profit on the contract.

Stage of completion = cost incurred to date/estimated final contract cost
= 465,000/581,250 = 80%

Revenue to be credited to income statement = £640,000 × 80% = £512,000

2.6

- In this question the profit is calculated as a percentage of cost. Sometimes the profit is expressed as a percentage of selling price so be sure to read the question carefully.
- Calculate the total cost first, then the remaining answers can be slotted in as balancing figures.

Job Y256	£
Prime cost	606
Overheads	694
Total cost $\left(1{,}690 \times \frac{100}{130}\right)$	1,300
Profit margin	390
Selling price	1,690

2.7 *False*. A contract loss should be allowed for in the accounts as soon as it is foreseen.

2.8 The estimated labour cost of job no. D47 is £1,375.

Workings:

The idle time would be stated as a percentage of the *paid* labour hours.

	Hours
Active labour hours required	120
Idle time (×4/96)	5
Total paid hours required	125
Labour cost @ £11 per hour	£1,375

Solution 3

- You will need to recognise that some costs are fixed and others are variable – note that you cannot simply double the cost of 10,000 leaflets to obtain the cost for 20,000.
- In part (b), not all the capacity is utilised and consequently there is an under-absorption of fixed overheads.

(a) (i) £64
(ii) £53

Workings:	*Cost of batch 10,000 leaflets*	*Cost of batch 20,000 leaflets*
	£	£
Artwork[1]	65.00	65.00
Machine setting[1]	88.00	88.00
Paper	125.00	250.00
Ink and consumables	40.00	80.00
Printers' wages	32.00	64.00
	350.00	547.00
General fixed overheads[2]	100.00	200.00
Total cost	450.00	747.00
Profit $\left(\frac{30}{70} \times \text{cost}\right)$	192.86	320.14
Sales revenue required	642.86	1,067.14
Selling price per 1,000	£64.00	£53.00

Notes:

1. Machine setting and artwork costs are not affected by the size of the batch.
2. General fixed overhead = £15,000/600 = £25 per hour.

(b) (i) General fixed overhead for the period was *under-absorbed.*
Actual labour hours worked = (64 × 4 hours) + (36 × 8 hours) = 544 hours. This is less than the budgeted labour hours of 600 and all costs were as expected therefore the overhead would be under-absorbed.

(ii)

Overhead absorbed = 544 hours × £25 =	£13,600
Overhead incurred	£15,000
Under-absorbed overhead	£1,400

Solution 4

- You will need to produce a lot of workings. These will be for your own benefit because workings do not earn marks in the assessment.
- Note that contract B has been in operation for only 4 months.

(a) (i) £880,000
(ii) £144,000

Workings:

	Contract A	*Contract B*
	£000	*£000*
Plant sent to site	1,000	150
Depreciation (12%) $\left(12\% \times \frac{4}{12}\right)$	120	6
Net book value	880	144

(b) (i) £505,000
(ii) £145,000
Workings:

	Contract A	*Contract B*
	£000	*£000*
Materials sent to site	700	150
Materials returned to stores	(80)	(30)
Materials transferred	(40)	40
Materials on site at 31 March	(75)	(15)
	505	145

(c) (i) £300,000
(ii) £9,000
Workings:

	Contract A	*Contract B*
	£000	*£000*
Contract price	2,000	550
Cost incurred to date	(1,200)	(406)
Cost to completion	(400)	(174)
Estimated total contract profit/(loss)	400	(30)
Recognised	300[1]	(30)[2]

Notes:

1. $400 \times \left(\frac{1200}{1600}\right)$
2. The full amount of loss is allowed for.

Contract B

Degree of completion, based on cost incurred = 406/580 total cost = 70%	£
Revenue to be credited to income statement (£550,000 × 70%)	385,000
Cost to be charged to income statement (£580,000 × 70%)	(406,000)
Provision for future losses (balancing figure)	(9,000)
Contract loss	(30,000)