Incomplete Records (B).

2003 Q.7

Incomplete records has featured regularly on both mock papers and also the actual Leaving Cert paper. As you probably know, there are two types of incomplete records questions. In the type featured below we need to work backwards through our answer, ultimately ending up with the sales figure in the trading account. So let's get going…

First of all, a quick glance at what we're being asked to do will show you that part (a) of the question is looking for a statement or balance sheet showing our profit/loss for the year. What they're getting at here is that the question will give us almost everything we need to prepare a balance sheet for the company. The only figure we'll be missing is the net profit in the 'financed by' section. Since the total of the 'financed by' should equal the total net assets of the business, we'll easily be able to work out the net profit. If that sounds complicated don't panic, you'll see in a minute that it's actually pretty straight forward.

Ok so if we're going to do a balance sheet first, we need to begin by working out what the fixed assets are going to be. A quick scan through the question will show you that we had buildings at the start of the year, that we bought more buildings during the year (note ii) and that we also bought equipment during the year (note iii) and that we started an investment fund in October (note ii). Other than these things, there's one fixed asset that is slightly hidden in the question and you need to remember to look out for it. That fixed asset is 'Goodwill' and we work it out by comparing what we paid for the business at the start of the year, with what it seemed to be worth at the time. The very top of the question says that we bought a business with four assets (buildings, stock, rates prepaid and debtors) totaling €341,600 and two liabilities (wages due and creditors) totaling €61,600. If you take the liabilities from the assets we get what we think the business is worth: €280,000. But you'll notice that we paid €320,000 for it. What this means is that there was another asset they didn't mention – Goodwill of €40,000. So now our fixed assets look like this:

Fixed Assets	€	€	€
Buildings			540000
Equipment			12000
Investments			7575
Goodwill			40000
			599575

The buildings are the €290,000 we started with plus the €250,000 we bought during the year. The equipment is the €16,000 of equipment we bought minus the fact that note (iv) told us that 25% of the equipment was not for the business (it will appear as 'drawings' in the 'financed by'). The investments figure is the €2,500 we've lodged into it each month since October (plus the €75 interest that's been added – this was mentioned in note v). Finally, the goodwill was the figure we just worked out in the last paragraph above.

Now on to the current assets. The first three of these are down in the closing balances at the end of the question – Stock, Debtors and Cash at bank. Other than these, there's just one sneaky thing: If you look at the top of the question you'll notice that one of our opening balances at the start of the year was *'three months rates prepaid €2,400'*. This meant that when we started the year we had already paid three months of rates for the year. But now if you look at note (iii) you'll see that we paid *'rates for twelve months €10,800'*. Hopefully it will make sense to you that we didn't need to pay twelve months of rates (because we'd already paid three at the start of the year). So what it means is that of the €10,800 we paid for twelve months, three of these months can be carried into next year. If you divide €10,800 by 12 and multiply by 3, you get the amount of rates prepaid at the end of the year – i.e. A current asset! So our current assets are:

Current Assets.	
Stock	17200
Debtors	34300
Cash	68462
Rates Prepaid	2700
	122662

That's a lot of the hard work done. Now on to the current liabilities. Two of these are easily found down in the closing balances at the end of the question – Creditors and Electricity due. Other than these, there's only one sneaky thing. If you check out note (ii) you'll see that we borrowed money from the bank and that the interest is 6%. 6% of €300,000 is €18,000 but don't forget that this would be a full year of interest and we only took out the loan in October, so we owe three months of interest (i.e. €18,000 divided by 12 and then multiplied by 3 = €4,500). One other little issue - we're told in note (iii) that we've paid €3,000 in interest so what we *now owe* is the balance of €1,500. This is what goes into the current liabilities.

Current Liabilities.	
Creditors	29900
Electricity Due	560
Interest	1500
	31960

One quick point that you may have noticed: In note (iv) it says that 25% of the interest is not for the business (i.e. It's drawings). You might have been tempted to do something with this when we were working out the interest figure in the current liabilities. This would have been a mistake because anytime there's an issue of drawings we're meant to subtract it from the expense in our profit and loss account and then add it to our list of drawings in the 'financed by' section of the balance sheet. By doing these two things, our answer will balance. If you *also* change the figure in the assets or liabilities you'll basically be doing a third thing and therefore the answer won't balance. So the moral of the story is that drawings don't come into play in the current assets or current liabilities.

And therefore what we have so far is:

Balance Sheet as at 31/12/02.

Fixed Assets.	€	€	€
Buildings			540000
Equipment			12000
Investments			7575
Goodwill			40000
			599575
Current Assets.			
Stock		17200	
Debtors		34300	
Cash		68462	
Rates Prepaid		2700	
		122662	
Current Liabilities.			
Creditors	29900		
Electricity Due	560		
Interest	1500		
	31960	31960	
		90702	90702
			690277

Finally, we need to do the 'Financed By'. The easy things here are the loan (€300,000) and our Capital (€350,000 – it's given to us at the very start of the question). Other than these we just have three last things to look out for. First of all we need to put in the €2,500 from note (iii). This might seem a bit confusing because it says in the question that this is 'dividends' and normally this means that we are handing out money, not putting it into the business. But in this case the €2,500 is clearly mentioned as something we '*lodged*' to the business so what it means is that the owner must have earned the dividends from shares in some other company and then decided to invest them in this business – i.e. It's extra capital that must be recorded in the 'Financed By'.

We also need to put a figure in for 'Drawings' (and this as usual will be a minus figure). Notes (i) and (iv) give us the list of all the drawings and we therefore need to total these:

Stock:	€100 x 52 = €5,200
Cash:	€150 x 52 = €7,800
Equipment:	25% of €16,000 = €4,000
Light and Heat:	25% of (€7,200 + €560 due 31/12) = €1,940
Interest:	25% of €4,500 = €1,125
College Fees:	70% of €4,500 = €3,150
	Total: €23,215

So our 'Financed By' is now missing only one figure:

Financed By.	
Loan	300000
Capital	350000
Capital Added	2500
Drawings	(23215)
Net Profit	?
	690277

Thankfully, we know that the total should match the total of the net assets above (the €690,277). This is always the case in a balance sheet and these are the two figures that we use to check our answers when we do a normal final accounts question. In this case it really helps us because by knowing all but one of the figures in the 'Financed By' section and by knowing that the total should come to €690,277 we essentially know that the missing figure or net profit must be €60,992. Brilliant!

Right, so now we've half the answer done it's time to continue with our backwards trip through the question. The trading and profit and loss account is the challenge in this second half and since we have no figures for purchases or sales, we need to work from the bottom-up. Luckily we already know the net profit (because that's what we worked out in the balance sheet) so the next step is to confirm all of the expenses.

You'll probably already have noticed what the expenses are and so it's more a case of deciding what figure should appear for each of them. To do this we just need to be aware of three things:

a) Was there any part of the expense due or prepaid on the 1/1?
b) Is there any part of the expense due or prepaid on the 31/12?
c) Are there any drawings that affect the expense?

When you keep these things in mind you'll see that the expenses will be as follows:

Light and Heat: €7,200 Paid + €560 Due 31/12 = €7,760. Minus €1,940 Drawings = €5,820.

Interest: €3,000 Paid + €1,500 Due 31/12 = €4,500. Minus €1,125 Drawings = €3,375.

Wages and General Expenses: €98,000 - €3,600 Wages Due 1/1 = €94,400.

College Fees: €4,500 - €3,150 Drawings = €1,350.

Rates: €10,800 + €2,400 Prepaid 1/1 - €2,700 Prepaid 31/12 = €10,500.

You might notice in both the Light and Heat and also the Interest that we worked out the drawings *after* making adjustment for the bits that were due. This is because the question clearly said that drawings in each case were "25% of light and heat *used* and interest *payable*". In other words, the drawings were to be a percentage of each final total, not just of the bit we actually paid during the year. If the question had said that drawings were 25% of light and heat or of interest *paid*, the drawings figures would then have been 25% of €7,200 and €3,000 respectively.

So now we have:

Expenses		
Light and Heat	5820	
Interest	3375	
Wages and Gen Exp.	94400	
College Fees	1350	
Rates	10500	
	115445	115445
Net Profit		60992

Next we need to ask ourselves if there are any gains and fortunately there's only one – the €75 interest earned by the investment fund (one of the very last pieces of information at the bottom of the question).

So now we know…

Gross Profit		176362
Gains.		
Interest on Investment		75
		176437
Expenses		
Light and Heat	5820	
Interest	3375	
Wages and Gen Exp.	94400	
College Fees	1350	
Rates	10500	
	115445	115445
Net Profit		60992

You might be realising now how this whole topic falls together. Once we had the net profit and all the expenses we basically also knew the figure above them (the €176,437) because we would minus the expenses from this to get the net profit (so you just do it in reverse and *add* the expenses to the net profit to find out what this figure should be). In the same way, once we got the 'gains' total of €75 we then knew what the gross profit should be (because you add the gains to the gross profit to get the €176,437 – so when we were working backwards we just had to *subtract* the €75 from the €176,437 to find the gross profit).

Now all we need is the trading account, or to think of it more simply: the sales, purchases, opening stock and closing stock figures.

Opening stock (€16,700) is given to us at the start of the question and closing stock (€17,200) is given to us at the end, so all we really need are sales and purchases. It might make sense to you that as long as we find one we'll be able to work out the other (since the one we don't know will be the only missing figure in the whole question and therefore it will be possible to see what it has to be to make everything else work). The good news is that the question pretty much tells us what the sales figure is: *"The gross profit was 40% of sales"*. By telling us this all we have to do is look at our gross profit (€176,362) and find 40% of it (€440,905). Excellent!
So now we know everything except the purchases figure:

	€	€	€
Sales			440905
Opening Stock		16700	

Purchases	?	
Closing Stock	-17200	
	264543	264543
Gross Profit		176362
Gains.		
Interest on Investment		75
		176437
Expenses		
Light and Heat	5820	
Interest	3375	
Wages and Gen Exp.	94400	
College Fees	1350	
Rates	10500	
	115445	115445
Net Profit		60992

The reason we know that the figure above gross profit is €264,543 is that the sales (which we know) minus this missing figure must equal the gross profit. So working backwards all we need to do is subtract the gross profit from the sales to get the €264,543.

Finally the purchases figure has a question mark beside it but luckily we know that the total of the three items (opening stock + purchases – closing stock) has to come to €264,543 and therefore it should be easy to work out that the missing purchases figure must be €265,043.

(C) The answer to the small theory question is as follows…

I would advise O'Higgins to keep more detailed records in future. A full cash book will highlight income and expenditure and appropriate day books (accounts) will help to monitor assets and liabilities. With these records on hand, there will be no need to rely on estimates and an accurate trading, profit and loss account and balance sheet can be produced.