

# Coimisiún na Scrúduithe Stáit State Examinations Commission

# **LEAVING CERTIFICATE 2011**

# **MARKING SCHEME**

# **ACCOUNTING**

# **HIGHER LEVEL**

## **LEAVING CERTIFICATE ACCOUNTING - 2011**

# **Higher Level Marking Scheme**

#### **INTRODUCTION**

The solutions and marking scheme for Accounting Higher Level are attached.

Marks allocated to each line/figure are highlighted and shown in brackets like this alongside.



These marks are then totalled for each section/page and shown in a square like this



Accounting solutions are mainly computational and most figures are made up of more than one component. If a figure is not as per the solution, the examiners analyse the make-up of the candidate's figure and allocate some marks for each correct element included. To facilitate this, where relevant, the make-up of the figures is shown in workings attached to the solution.

In some Accounting questions there can be a number of alternative approaches and formats that can be validly used by candidates (e.g. A Bank Reconciliation Statement can start with either the bank statement figure or the adjusted bank account balance). The solutions provided here are based on the approaches adopted by the vast majority of teachers/candidates and alternatives are not included. In cases where a valid alternative solution is required, it is provided for the examiners, so that full marks can be gained for correct accounting treatment.

Sometimes the solution to a part of a question may depend on the answer computed in another part of that question. Where a calculation in section (a) is incorrect, allowance is made for this in subsequent sections.

(a)				75
Manufacturing Account of	of Fisher Ltd	l for the year en		
Opening stock of raw materials Purchases of raw materials Carriage on raw materials	W1		€ 49,500 [1] 455,500 [2] 6,050 [1] 511,050	€
Less Closing stock of raw materials  Cost of raw materials consumed  Direct costs	W2		68,000 [3]	443,050
Direct factory wages Hire of special equipment Prime cost			201,450 [2] 12,000 [2]	213,450 656,500
Factory Overheads General factory overheads Patent written off Depreciation – Plant and Machinery Depreciation – Factory Buildings	W3 W4 W5		50,400 [2] 12,500 [2] 45,600 [3] 11,000 [2]	119,500
Factory cost Work in progress 1/1/2010 Less Work in progress 31/12/2010				776,000 20,500 [2] (25,500) [2] 771,000
Less Profit on sale of machine Less sale of scrap material Cost of Manufacture	W6			(2,800) [4] (6,000) [2] 762,200
Trading and Profit and Loss account	for the year		010	•
Sales Opening stock of finished goods Goods transferred at cost of manufactur	W7	€	80,000 [2] <u>762,200</u> [2] 842,200	€ 1,089,250 <b>[7]</b>
Closing stock of finished goods Gross profit Less Expenses	W8		(88,400) [6]	( <u>753,800)</u> 335,450
Administration Administration expenses Selling and Distribution Selling expenses	W9	108,175 [6]	20,500 [2]	
Bad Debt written off Provision for bad debts	W10	450 [2] 2,370 [4]		131,495 203,955
Operating profit	W 11 W 12			2,300 [2] 206,255
Net Profit before taxation Less Taxation Profit after Tax Less Dividends paid Retained Profit Profit and Loss Balance 1/1/2010 Profit and Loss Balance 31/12/2010	vv 12			(6,525) [3] 199,730 (24,000) [2] 175,730 (30,000) [1] 145,730 36,400 [2] 182,130 [3]

**(b)** 

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# Balance Sheet as at 31/12/2010

Intangible Fixed Assets Patents	Cost €	Acc. Dep €	Net €	<b>Total</b> € 87,500 [3]
Tangible Fixed Assets Factory Buildings	650,000 [2]	_	650,000	
Plant and Machinery <b>W13, 14</b>	216,000 [2] 866,000		63,200 713,200	713,200 800,700
<b>Current Assets</b>				000,700
Stock Raw materials		68,000 [2]		
Work in progress Finished goods		25,500 [2] 88,400 [2]	181,900	
Debtors W 15		47,400 [5]	45.020	
Less provision VAT		<u>(2,370)</u> [2]	45,030 4,200 [2]	
VAI			231,130	
Creditors: Amounts falling due with	in one year	_	,	
Creditors W 16		60,700 [4]		
Bank		8,600 [2]		
Debenture interest due Tax due		5,400 [3]	(09.700)	
Net Current Assets		24,000 [2]	<u>(98,700)</u>	132,430
The Current Assets				933,130
Financed by				
Creditors: amounts falling due after 9% Debentures	more than o	one year		80,000 [2]
Capital and Reserves		<b>Authorised</b> 400,000 [1]	Issued	
Ordinary shares @ €l each 4% Preference shares @ €l each		300,000 [1]	250,000 [1] 200,000 [1]	
170 Treference shares & G caen		700,000 700,000	450,000	
Revaluation Reserve W 17		<del></del>	221,000 [3]	
Profit and Loss Balance			182,130	<u>853,130</u>
Capital Employed				<u>933,130</u>

# **Question 1 - Workings**

1.	Purchases	440,500 + 15,000	455,500
2	Closing Stock - Raw materials	53,000 + 15,000	68,000
3.	Patents	100,000 ÷ 8	12,500
4	Dep plant and machinery	43,200 + 2,400 24,000 + 21,600	45,600
5	Dep Factory buildings	2% (€50,000)	11,000
	Provision for Dep - Factory buildings	110,000 + 11,000 - 121,000	-
6	Profit on sale of machine	24,000 – 22,800 – 4,000	2,800 cr
7	Sales	1,100,000 - 6,750 - 4,000	1,089,250
8	Closing stock –Finished goods	85,000 – 2,000 + 5,400	88,400
9	Selling expenses	108,000 + 175 (300 – 125)	108,175
10	Provision for bad debts	5% (€17,400)	2,370
11	Discount net	2000 + 300	2,300
12	Debenture Interest	[4,500 + 2,025] [1,000 + 125 + 5,400]	6,525
13	Prov for Dep – P & M	130,000 + 45,600 - 22,800	152,800
14.	Plant and machinery	240,000 – 24,000	216,000
15	Debtors	54,600 - 450 - 6,750	47,400
16	Creditors	45,700 + 15,000	60,700
17	Revaluation Reserve	100,000 +121,000	221,000

# **Penalties**

1 mark per entry within "Factory Overheads" if total overheads are deducted from prime cost I mark for omission of heading Selling Expenses

Balance b/d

(a)							22
		Adjuste	ed Debtors	Contr	ol Account		
			€				€
	Balance b/d		32,500	[1]	Balance b/d		600 [1]
	Discount disallowed	(i)	120	[4]	Interest	(ii)	20 [4]
	Bad Debt recoverable	(vi)	60	[4]	Sales returns	(iv)	30 [4]
	Balance c/d		600	[1]	Sales overstated	(v)	90 [3]
					Balance c/d		32,540
			33,280				33,280

**(b)** 

Balance b/d

600

#### **Schedule of Debtors Accounts Balances**

32,540

			€	€
Bala	nce as per list of debtors			27,639 [3]
<u>Add</u>	Discount disallowed	(i)	76 [5]	
	Interest on account	(ii)	160 [5]	
	Debtors – cash and credit sales error	(iii)	2,620 [4]	
	Sales	(v)	1,450 [4]	
	Bad debt recoverable	(vi)	60 [4]	4,366
				32,005
Dedu	<u>ıct</u>			
	Solog returns	(ix)		(65) [4]

Sales returns Net Balance as per adjusted Control Account 31.940 [1

**(c)** 

**Books of first entry** 

**(i)** Sales Sales Returns General Journal Cash Book – Receipts and Payments

(ii) They act as a check on the accuracy of the ledgers by comparing the balance of the control account with the total as per the schedule.

They locate errors quickly and narrow searching for errors to confined areas

They are useful when a firm needs to find credit sales or credit purchases from incomplete records.

They allow amounts owed by Debtors and amounts owed to Creditors to be ascertained quickly by simply balancing the control accounts.

(a)

#### Profit and Loss Account of Marx plc for the year ended 31/12/2010

T		1 000 000 [2]
Turnover		1,880,000 [2]
Cost of Sales	<b>W</b> 1	(1,152,000) [4]
Gross Profit		728,000
Distribution Costs	W 2	(298,200) [4]
Administrative Expenses	W 3	(329,800) [6]
_		100,000
Other operating income	W 4	80,000 [3]
Operating Profit		180,000
Investment Income	W 5	6,000 [2]
Profit on sale of land		55,000 [2]
		241,000
Interest payable		(24,000) [2]
Profit on ordinary activities before tax		217,000
Taxation		(80,000) [2]
		137,000
Dividends paid		(23,000) [2]
		114,000
Profit brought forward at 1/1/2010		40,000 [2]
Profit carried forward at 31/12/2010		<u>154,000</u> [3]

<sup>\*</sup>Penalties are applied where entries are in incorrect sequence.

#### Workings

	298,200
2. Distribution costs 250,000 + 4,200 + 44,000 =	
3. Administrative Expenses 240,000 + 60,000 + 10,000 + 10,000 + 9,800 =	329,800
4. Other Operating Income 60,000 + 10,000 + 10,000 =	80,000
5. Investment Income 5,000 + 1,000 =	6,000
<b>Note</b> Depreciation - Buildings 2% (700,000) = 14,000	
30% (14,000) =	4,200
70% (14,000) =	9,800

### **Notes to the Accounts**

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### 1. Accounting policy notes. [4]

Tangible Fixed Assets

Buildings were re-valued at the end of 2010 and have been included in the accounts at their re-valued amount. Vehicles are shown at cost.

Depreciation is calculated in order to write off the value or cost of tangible fixed assets over their estimated useful economic life as follows:

Buildings 2% per annum straight line

Vehicles 20% of cost

Stocks - Stocks are valued on a first in first out basis at the lower of cost or net realisable value.

## 2 **Operating Profit** [2]

The operating profit is arrived at after charging:

Depreciation on tangible fixed assets	58,000
Patent amortised	10,000
Directors remuneration	60,000
Auditors fees	10,000

3	Financial Fixed Assets [2]	01/01/2010	31/12/2010
	Quoted investments	300,000	300,000
	Unquoted Investments	_80,000	_80,000
	-	380,000	380,000

The market value of the quoted investments on 31/12/2010 was  $\le 160,000$ . The director's valuation of the unquoted investments on 31/12/2010 was  $\le 50,000$ 

## 4 Dividends [2]

Ordinary dividends

Paid 2.89c per share 13,000

Preference dividends

Paid 5.0c per share 10,000

## 5 Tangible Fixed Assets [4]

	Land & Buildings	Vehicles cost	Total
	€	€	€
01/01/2010	820,000	220,000	1,040,000
Disposal	(120,000)		(120,000)
Revaluation surplus	<u>150,000</u>		_150,000
Value at 31/12/2010	<u>850,000</u>	<u>220,000</u>	<u>1,070,000</u>
Depreciation 01/01/2010	91,000	8,000	99,000
Depreciation charge for the year	_14,000	<u>44,000</u>	<u>58,000</u>
	105,000	52,000	157,000
Transfer on revaluation	(105,000)		(105,000)
Depreciation 31/12/2010	Nil	<u>52,000</u>	<u>52,000</u>
Net book value 01/01/2010	729,000	212,000	941,000
Net book value 31/12/2010	<u>850,000</u>	<u>168,000</u>	<u>1,018,000</u>

**(b)** 

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(i) When a Contingent Liability is probable, the estimated amount should be provided for in the accounts and a note should show the nature of the loss. [4]

## (ii) Unqualified and Qualified Auditor's Report [8]

An unqualified auditor's report is often referred to as a clean report. A report is unqualified when the auditor in his/her opinion **is satisfied** that the following apply:

- the financial statements give a true and fair view of the state of affairs of the company at the end of the year and of it's profit and loss account for the year.
- the financial statements are prepared in accordance with the Companies Acts.
- all the information necessary for the audit was available
- the information given by the directors is consistent with the financial statements
- the net assets are more than 50% of the called up capital

A qualified auditor's report is when an auditor in his/her opinion is **not satisfied** or is unable to conclude that all or any of the above apply:

The report will state the elements of the accounts or of the director's report that are unsatisfactory.

	50	
(a)	52	

#### **Balance Sheet as at 31 December 2010**

Intangible Assets	€	€
Goodwill		31,500 [3]

**Fixed Assets** 

Buildings (400,000 + 280,000) 680,000 [4]

Equipment 8,800 [3] 688,800

**Financial Assets** 

Investments <u>14,436</u> [5] 734,736

**Current Assets** 

 Stock at 31 December 2010
 16,700 [2]

 Trade Debtors
 31,200 [2]

 Bank
 125,260 [5]

 Peter represent
 2,100 [3]

Rates prepaid <u>2,100</u> [3] 175,260

Less Creditors: amounts falling due within 1 year

 Creditors
 27,300 [2]

 Interest due
 1,200 [3]

 Electricity due
 \_620 [2] (29,120)

Net Current assets <u>146,140</u> 880,876

Financed by

Creditors: amounts falling due after more than 1 year

Loan 360,000 [2]

 Capital - Balance at 1/1/2010
 480,000 [2]

 Add Capital introduced
 3,800 [3]

Less Drawings (21,224) [7] 462,576 822,576

Add Net Profit 58,300 [4]
Capital Employed 880,876

**(b)** 

O'Hagan should keep a detailed cash book and general ledger supported by appropriate subsidiary day books. This would enable O'Hagan to prepare an accurate trading and profit and loss account and therefore would avoid reliance on estimates.

#### **Workings**

Light and heat - amount paid	8,100
Add electricity due 31/12/2010	620
Less drawings	<u>(1,744)</u>
Rates - amount paid Add rates prepaid 1/1/2010 Less rates prepaid 31/12/2010	8,400 1,800 ( <b>2,100</b> )
Interest - amount paid Add interest due Less drawings	2,400 1,200 <u>(<b>720</b>)</u>

# Drawings

Drawings of stock	8,320
Cash/bank	6,240
College fees – family member	2,000
Equipment	2,200
Light and heat	1,744
Interest	720
	21,224

	Bank Acc	<u>ount</u>	
Balance/Lodgment	480,000	Business	420,000
Loan	360,000	Drawings	6,240
Capital introduced	3,800	Wages	86,000
Cash lodgments	120,000	Equipment	11,000
		Purchases	280,000
		Investments	14,400
		Light & heat	8,100
		Interest	2,400
		Rates	8,400
		College Fees	2,000
		Balance	125,260
	<u>963,800</u>		<u>963,800</u>

(a) 50

### (i) Opening Stock

 $\underline{\text{Cost of Sales}} = 10 \qquad \underline{875,000}$ 

Average stock 10 x Average Stock

Average Stock = 87,500

Opening Stock =  $(87,500 \times 2)$  less 80,400

**494,600** [10]

## (ii) Gearing

<u>Debt Capital</u> x 100 = <u>240,000 + 100,000</u> x 100 = **36.45%** [9] Capital employed 932,800 = **0.364 5to 1 0.574 to 1** 

#### (iii) Earnings per share

Net profit after preference dividend = 40,800 = 7.42c [10] Number of ordinary shares 550,000

#### (iv) Dividend Yield

 $\frac{\text{Dividend per share}}{\text{Market Price}} \times 100 = \frac{4.55}{90} \times 100 = 5.05\%$  [12]

(v) Period to recoup share price

Market price = 90 = 19.78 years [9]
Dividend per Share = 4.55c

**(b)** 

#### **Bank Loan Application**

**40** 

#### **Return on Capital Employed** [7]

The company is profitable but less profitable in 2010 than in 2009. The ROCE has disimproved from 8.1% to 7.0%. This is less than the 8% interest to be charged on the loan. Why borrow/ loan at 8% if the return is only 7%.

## Liquidity [7]

The acid test ratio of 0.43 to 1 is very poor. It has worsened from 0.7 to 1 since 2009. Sully plc has a serious liquidity problem. It has only 43c of liquid assets available for each €l owed. The Liquidity problem will worsen if loan is granted. The company will/may not be able to pay extra interest

## Gearing [6]

The company is lowly geared but gearing has become less favourable after rising from 32% to 36.45%. The gearing will get worse with a further loan of €400,000. The gearing with the loan will be 56%. The Interest Cover has disimproved from 5 times in 2009 to 3.3 times in 2010. This cover will get much worse if a loan of €400,000 is granted

## Security [6]

The Fixed Assets are valued at cost at  $\oplus$ 42,800 but one should question the depreciation policy to ascertain the real value of the tangible assets. One should also question the value of intangible assets The Investments have a market value of  $\oplus$ 0,000 but cost  $\in$ 150,800.

Already €240,000 is committed to securing debenture. The balance sheet value of tangible fixed assets is €642,000 leaving €402,000 after security committed to debentures. The security is not adequate.

## **Dividend Cover/policy** [5]

The Dividend Cover is 1.6 times. This has worsened from 1.9 times in 2009. The Dividend Cover is low. Not enough of earnings are retained. This would jeopardise the repayment of the loan.

## Sector [5]

Sully plc is involved in the construction industry. There is grave concern about the industry in the current climate and prospects in not encouraging in medium term

Further questions about current value of fixed assets and serious question about the ability of Sully plc to generate any/enough profits to pay back/service loan as the construction industry has declined significantly in recent times due to the slow down in economic growth.

Property developers are finding it hard to sell properties and this in turn has a knock on effect for companies in the construction industry as building has almost come to a standstill. The overall worsening state of the economy is having a very negative effect on the construction industry.

#### OR

#### Purpose for which loan is required

The loan is required for future expansion. Future expansion should be more specific. It is questionable whether Sully plc could generate extra income to service the loan.

#### **Conclusion** [4]

(c)

10

#### Limitations of ratio analysis

- It analyses past figures only and these figures are quickly out of date (historical). It merely gives us clues to the future.
- Ratios do not show seasonal fluctuations
- Firms use different accounting bases and therefore company comparisons are not accurate
- Financial Statements give limited pictures of a business. Other important aspects of a company are not revealed in the Financial Statements. Accounts alone cannot measure aspects which may be extremely significant such as monopoly position, economic climate, staff morale and management/staff relationships.

(a)			30
Accumul	ated Fund	at 1/1/2010	
Assets			
Clubhouse and Grounds		250,000 [1]	
Equipment		75,000 [1]	
Bar stock		15,000 [2]	
Bar debtors		1,280 [2]	
Wages prepaid		400 [2]	
Subscriptions due		500 [2]	
Bank		1,140 [2]	
4% Government investments		50,000 [3]	
Levies due		800 [2]	394,120
Less Liabilities			
Bar creditors		8,400 [2]	
Life membership		24,000 [2]	
Levy Reserve		20,000 [2]	
Loan		30,000 [2]	
Loan Interest due		1,584 [3]	(83,984)
Accumulated Fund/Capital 1/1/2010		<u> </u>	310,136 [2]
(b)			35
<b>Income and Expenditure Account for</b>	the Year	ending 31/12/2010	
		€	€
Income		_	-
Bar profit	W 1	32,620 [6]	
Interest from investments	–	2,000 [3]	
Subscriptions	W 2	56,400 [6]	
Annual sponsorship		7,500 [1]	
Life membership written off	W 3	6,000 [2]	104,520
Expenditure			
Catering Loss	<b>W</b> 4	3,100 [2]	
Loss on sale of equipment		1,500 [2]	
Sundry expenses	W 5	24,400 [2]	
Coaching lessons		3,500 [1]	
Travel expenses		10,000 [1]	
Loan Interest		2,376 [2]	
Depreciation Equipment		19,750 [2]	
Depreciation Clubhouse and grounds		5,000 [2]	(69,626)
Surplus of income			34,894 [3]
1			

(c)		20
	Balance Sheet as at 31/12/2010	

Dalance Sheet as at 31/12/	/ <b>2</b> 010		
	€	€	€
Fixed Assets			
Clubhouse and Courts	250,000 [1]	5,000 [1]	245,000
Equipment	<u>79,000</u> [2]	<u>19,750</u> [1]	59,250
	<u>329,000</u>	<u>24,750</u>	304,250
Investments			
4% Government Investments			50,000 [1]
			354,250
Current Assets			
Closing Stock	13,300 [1]		
Debtors	300 [1]		
Bank	45,180 [2]		
Investment Interest due	500 [2]		
Prize Bonds	4,400 [1]	63,680	
Less Creditors: amounts falling due within 1 year	_		
Creditors	8,600 [1]		
Subscriptions prepaid	<u>300</u> [1]	<u>(8,900)</u>	_54,780
Total Net Assets			<u>409,030</u>
Financed by			
Creditors: amounts falling due after more than 1 ye	ar		_
Life membership			24,000 [1]
Accumulated Fund			
Balance at 1 January 2010		310,136 [1]	
Add surplus of income		<u>34,894</u> [1]	345,030
Levy Reserve			40,000 [2]
Capital Employed			<u>409,030</u>

# Limitations of a Receipts and Payments Account. [6]

(d) (i)

- does not show whether the club is raising enough funds to cover its running costs
- amounts due but unpaid at the end of the accounting period are not included
- only shows an increase or decrease in cash although there could be outstanding bills
- does not take into account losses such as depreciation
- does not show whether the club bar or restaurant are profitable
- does not distinguish between receipts for the current year and other years

## (d) (ii) [9]

<u>Yes</u> I would advise the treasurer to go ahead and install the floodlights. The improved facilities would allow longer use of club courts resulting in added income from usage. This could enable the club to increase its membership and thereby increase the annual surplus of income as well as greater usage of restaurant and bar.

The club is in a strong financial position: It has a surplus of income over expenditure of €34,894 in the current year. At this rate of surplus enough funds would be generated in little over two years.

To fund the expenditure of  $\circlearrowleft 0,000$  the club could use the cash balance of  $\circlearrowleft 5,180$ , the prize bonds of  $\circlearrowleft 4,400$  and withdraw  $\circlearrowleft 20,420$  from the investment fund.

The club should avoid using any of the funds raised through the levy as this is more than likely earmarked for other purposes and these funds may be needed for future capital expenditure.

Funds available without	out Reserve Fund
Investments	50,000
Prize bonds	4,400
Bank balance	<u>45,180</u>
	99,580
Less Levy	(40,000)
Net available	<u>59,580</u>

Borrow the remainder in the short term as the club is capable of paying back quickly through its regular income sources.

#### **Question 6 - Workings**

1. Bar Trading account for the year ending 3	31/12/2010	
Sales $(74,000 + 300 - 1,280)$		73,020
Less Cost of Sales		
Opening stock	15,000	
Purchases $(38,500 + 8,600 - 8,400)$	<u>38,700</u>	
	53,700	
Closing stock	(13,300)	(40,400)
Bar profit		<u>32,620</u>
2. Subscriptions		
Received	84,000	
<u>Less</u> subs due 1/1/2010	(500)	
Life membership	(6,000)	
Levy 2010	(20,000)	
Levy 2009	(800)	
Subs prepaid 31/12/2010	<u>(300)</u>	56,400
3. Life Membership		
1/1/2010	24,000	
Amount received	6,000	
less transferred to P&L account	<u>(6,000)</u>	24,000
4. Catering Loss		
Receipts	12,700	
Costs	(15,800)	3,100
5. Sundry Expenses		
Payments	24,000	
Add wages prepaid	<u>400</u>	24,400



Total	900,000 [1]	(23,800)	48,000	(39,500)	38,800	(500)	18,000	80,060	88,050	(6,160) [1]	1,102,950	700,000	76,000 [1]				93,095 [2]	104,200	(33,720) [2]	1,375	1,000[1]	161,000	1,102,950
December		(23,800) [2]		(25,000) [2]							(48,800)			3,500 [2]	(375) [2]	(25,000) [2]	(23,800) [2]			375 [2]	(3,500) [2]		(48,800)
November											ı	80,000 [2]	20,000 [2]						[100,000]				I
October											I			(31,000) [2]					31,000 [2]				1
September					(1,200) [2]	500 [2]					(200)			100 [2]				(800) [2]					(200)
August								[2] 009	[8] (025)		(20)			[2] (02)									(20)
July								(440) [2]	180 [2] 440 [2]		180			[2] 006					(720) [2]				180
June											I								(4,500) [2] 1,500 [2]	(1,500) [2]	4,500 [2]		ı
May			10,000 [2]	5,500 [2]							15,500			500 [2]					15,000 [2]				15,500
April										(2,160) [3]	(2,160)			(2,160) [2]									(2,160)
February	200,000 [2]				30,000 [2]		18,000 [2]		8,000 [2]		256,000	180,000 [2]	36,000 [2]					40,000 [2]					256,000
January	150,000 [2]	11,000 [2]									161,000											161,000 [2]	161,000
1/1/2010	550,000	(11,000)	38,000	(20,000)	10,000	(1,000)		80,000	80,000	(4,000)	722,000	440,000	20,000	170,500				65,000	24,000	2,500			722,000
	Land & Buildings	L&B depreciation	Vehicles	Veh. depreciation	Equipment	Equip depreciation	Goodwill	Stock	Debtors	Prov.for bad debts	Total Assets	Share Capital	Share Premium	P&L				Creditors	Bank	Expenses (due)	Rent receivable	Revaluation Res.	Total Liabilities

(a)



€

Sales (90,000 units)			1,170,000	per unit 13.00
Less Variable Costs				
Direct materials		390,000		
Direct wages		236,000		
Factory overhead (40%)	)	[1] 32,800		
Sales commission (5%	of sales)	[1] <u>58,500</u>	( <u>717,300)</u>	<u>(7.97)</u>
Contribution			452,700	5.03
Less Fixed Costs				
Factory overhead (60%)	)	49,200		
Selling expenses (excl	· ·	[1] 46,500		
Administration expense	es	<u>130,000</u>	(225,700)	
Net Profit			<u>227,000</u>	
	F: 10	227 500 511		- 11 1 0 <del>-</del> 1
Break even point	Fixed Costs	<u>225,700</u> [1]	=	[4] 4,871 units
	CPU	5.03 [1]		
Margin of safety	Budgeted Sales –	Break even point		
Margin of Safety	90,000 [2] –	44,871 [1]		[2] <b>45,129</b> units
	90,000 [2] -	44,0/1[1]	=	[2] 43,127 ullits

€

# (b) Number of Units to increase profits by 20%

Net profit 2010	227,000
Increase in net profit 20%	45,400
Net profit for 2011	<u>272,400</u>

Fixed Costs + Target Profit	=	[2] 225,700 + 272,400 [3]	=	[2] 99,026 units
CPU		5.03 [5]		

# (c) Profit if selling price dropped to €11 in 2011

Sales (110,000 x €11)	1,210,000 [4]	
Less Variable costs (110,000 x €7.87)	(865,700) [4]	
Total Contribution (110,000 x €3.13)	344,300	
Less Fixed costs	240,700 [4]	
Profit	103,600	[2] <b>€103,600</b>

# $(d) \qquad \text{The selling price to be charged} \\$

Let S be the selling price

Sales	<ul> <li>Variable costs</li> </ul>	=	Fixed costs	+	Profit	
90,000S [1]	] - 90,000[7.32 + 0.05S][5]	=	[3] 252,784	+	227,000 [3]	
90,000S	-[658,800 + 4,500S]	=	479,784			
90,000S	- 4,500S	=	479,784	+	658,800	
85,500S		=	1,138,584			
S P		=	<b>€</b> 13.3167			[2] €13.32

(e) Let the number of units = N
Sales Revenue = 16N
Profit = 1.6N

Sales = Variable Costs + Fixed Costs + Profit 16N 2 = 8.12N 4 + 225,700 2 + 1.6N 4

6.28N = 225,700 N = 35,939.49

[2] 35,940 units

**(f)** 

## **Limitations/assumptions:** [7]

Variable costs are assumed to be completely variable at all levels of output. However variable costs may decrease due to economies of scale **or** may increase because of increased costs.

It is assumed that in marginal costing fixed costs remain the same although most fixed costs are step-fixed and are only fixed within a relevant range.

It is assumed that all mixed costs are easily separated into fixed or variable. The High Lo method can be used for this purpose but it is not always possible to do this.

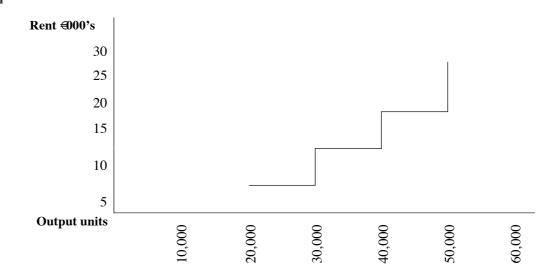
It is assumed that the selling price per unit is constant and does not allow for discounts.

Production in a period usually equals sales. Fixed costs are charged in total to a period and are not carried forward to next period.

#### **Step Fixed Cost**

Step fixed costs are costs that are fixed within a certain range of activity but change outside of that range. E.g. Rent could be fixed up to a certain level of production. However, if production increases and results in the rental of more factory space, then the rent would increase to a new level. Thus the fixed costs would increase in steps.

Graph [5]



(a)

(c)

## **Production Budget**

	Light	Extra Light
Budgeted Sales in units	12,000 [3]	3,500 [3]
+ Closing Stock	<u>585</u> [3]	<u>450</u> [3]
	12,585	3,950
- Opening Stock	<u>(650)</u> [2]	_(500) [2]
Budgeted production (units)	<u>11,935</u>	<u>3,450</u>

# (b) <u>Materials Purchases Budget</u>

		Material A (Kgs.)	Materia (Kg	
Required by P	Production			
Light	(11,935 x 8kgs)	95,480 [2]	107,415 [2]	(11,935 x 9kgs)
Extra light	(3,450 x 6kgs)	<u>20,700</u> [2]	<u>24,150</u> [2]	$(3,450 \times 7 \text{kgs})$
		116,180	131,565	
Closing stock (	90% of opening stock)	5,400 [2]	3,600 [2]	
		121,580	135,165	
Less opening s	tock	(6,000) [2]	(4,000) [2]	
Budgeted purcl	hases of R.M. in kgs.	115,580	131,165	
Purchase price		<u></u> €1 [2]	<u>€5.50</u> [2]	
Purchases in €		<u>€462,320.00</u>	<u>€721,407.50</u>	€1,183,727.50 Total

Produ	get €	€		
Opening stock of raw material	Light Extra Light	(6,000 x 3.5) (4,000 x 5.0)	21,000 20,000	41,000.00 [4]
Purchases Material A Material B			462,320.00 721,407.50	1,183,727.50 [2] 1,224,727.50
<b>Less</b> Closing stock of raw materials	Light	(5,400 x 4)	21,600	_
Labour cost	Extra Light Light	(3,600 x 5.5) (11,935 x 8 x 12)	19,800 1,145,760	<u>(41,400.00)</u> [4] 1,183,327.50
	Extra Light	(3,450 x 9 x 12)	372,600	1,518,360.00 [4]
Variable overhead	Light Extra Light	(11,935 x 8 x 4.5) (3,450 x 9 x 4.5)	429,660 139,725	569,385.00 [4]
Fixed overhead  Cost of Manufacture				210,500.00 [2] 3,481,572.50 [3]

(**d**)

Budgeted closing stock p	oer unit	Light	,	Extra Light
Material A	(8 kg x €4)	32.00 [1]	(6 kg x €4)	24.00 [1]
Material B	$(9 \text{ kg x} \in 5.50)$	49.50 [1]	(7 kg x €5.50)	38.50 [1]
Direct labour	(8 hrs x €12)	96.00 [1]	(9 hrs x €12)	108.00 [1]
Variable overheads	(8 hrs x €4.50)	36.00 [1]	(9 hrs x €4.50)	40.50 [1]
Fixed overheads	(8 hrs x €1.66) <b>W</b> 1	<u>13.28</u> [1]	(9 hrs x €1.66)	<u> 14.94</u> [1]
Cost per unit		226.78 [1]		225.94 [1]

## W 1 Fixed overheads per direct labour hour

$$\frac{210,500}{126,530} = \mathbf{61.66} \, \boxed{2}$$

(e) [7]

A Master Budget is a summary of all the other budgets and provides an overview of the operations for the planned period.

A Master Budget for a manufacturing firm consists of:

- Budgeted manufacturing account
- Budgeted trading account and profit and loss account
- Budgeted balance sheet

