2013 Accounting

Advanced Higher - Solutions

Finalised Marking Instructions

2013 ADVANCED HIGHER ACCOUNTING

MARKING CONVENTIONS

CONVENTION	EXPLANATION	MARK(S) ON CANDIDATES PAPER
Extraneous	Items entered which should not be in the answer	-1E
Consequential	If a figure in a question is wrong, any further calculations are awarded marks if correct, as a consequence of using that figure	C
Nomenclature	The details in an account are wrong/ missing	-1N
Dates	The date of an entry is wrong/missing	-1D
Complete Reversal	**All** the ledger entries are made the wrong way round The question is marked as if correct and then the total mark is divided by 2	R eg Total Mark = 12 Divided by 2 Mark awarded = 6
Plus/Minus Rule	If an entry is shown correctly it is awarded the mark (+) If the same entry then appears in another part of the question the mark is deducted (-) ie no mark is gained and there is no penalty	eg Correct entry £60,000 Sales in the Trading Account – Mark awarded 1 (+-) Wrong entry £60,000 Sales also entered in the Balance Sheet – Mark deducted -1 (+-)
Penalty	The answers given are more than required (4 given instead of 3) and one of them is wrong A heading is wrong/missing from a final account The answer is correct but not given in the format requested ie the question asks for an account or a statement and a list is given	-1P

GENERAL INSTRUCTIONS

1 Assess pencil figures and working. If the script is predominantly in pencil refer to the Principal Examiner.

2 A maximum of 10% of marks gained on any individual question may be deducted for untidy work and poor style. This penalty should only be applied in exceptional circumstances.

3 Work which has been deleted gains no marks, even if correct. Exceptional cases may be drawn to the attention of the Principal Examiner.

4 Consequential errors MUST NOT be penalised, subject to the marking instructions for each question.

5 Mark workings whether or not they are incorporated into the final answer. Deduct a penalty of -1 mark per question for working which is not incorporated in the final answer.

6 Incorrect figures, supported by adequate workings – award marks for any correct operations performed.

7 Incorrect figures, not supported by adequate workings – lose awards, unless the marking instructions specify otherwise. If arithmetic error lose 1 mark.

8 EXTRANEOUS ITEMS – see instructions for specific questions.

9 If right and wrong – give value of award where figure is correct, deduct value of award where figure is wrong (cross reference +/- against relevant figures).

10 Indicate awards given for each item next to the appropriate figure eg £1500[1]

In essay type questions indicate the marks awarded beside the point made by the candidate – NOT IN THE MARGIN.

Sub-totals for each section should be indicated and encircled, 

Final totals should be clearly indicated and easy to check, eg Q1 = 42/50.

2013 Accounting
Advanced Higher
Solutions

SECTION A

Question 1

Working Notes

Advertising Y1	9,000		
Amount paid	5,250		
Amount pre-paid	750		
Charge for 6 months	4,500		***(2)***

Wages Annual cost Y1	108,000		
5% Increase	5,400		
Year 2 charge	113,400		
Charge for period	56,700		***(3)***

General Expenses Y1	27,000		
Charge for period	13,500		***(2)***

DEPRECIATION			
Machinery at cost	100,000		
Depn Y1	10,000	***1***	
NBV	90,000		
Depn Y2 6 months	4,500	***2***	***(3)***
NBV	85,500		
Vehicles Cost	48,000		
Depn Y1	9,600	***1***	
	38,400		
Depn Y2 – 6 months	4,800	***1***	***(2)***
	33,600		

Bank Balance				**Capital at start**	£	
Opening Balance		–1,500	***2***	Machinery	90,000	
Received from customers		205,200	***1***	Vehicles	38,400	
		203,700		Stock	30,800	
Less expenses				Debtors	24,500	
Paid to suppliers	78,600				183,700	***1***
Wages	47,250			Less Liabilities		
Advertising	5,250			Bank	1,500	***1***
General Expenses	11,250			Creditors	13,500	***1***
Refund to customers	3,200				15,000	
Drawings	12,000	157,550	***1***	Capital at start	168,700	
Closing Balance		46,150				***(3)***
			(4)			

(a) **Year 1 CALCULATIONS**

(i)

	£		
Sales	268,000		
Less Cost of sales	93,800		
Gross Profit	174,200	***1***	
Gross Profit %	174,200 / 268,000 ***×100***		
=	65%	***1***	***(2)***

(ii) **Year 2 CALCULATIONS**

Calculation of Sales

Cash received	205,200	***1***	
Add Closing Balance	23,200		
	228,400	***1 for both***	
Less opening Balance	24,500		
	203,900		
Less Cash refunds to customers	3,200	***1***	
Sales	200,700		***(3)***

(iii) **Calculation of Purchases**

Cash paid	78,600	***1***	
Add Closing Balance	16,300		
	94,900	***1 for both***	
Less opening Balance	13,500		
Purchases	81,400	***(2)***	***(7)***

(b) TRADING AND PROFIT AND LOSS ACCOUNT FOR 6 MONTHS ENDED 30 June Year 2

	£	£	£	
Sales			200,700	***1***
Less Cost of sales				
Opening stock	30,800			***1***
Add Purchases	81,400			***1***
		112,200		
Less Closing stock		41,955		***2***
Cost of goods sold			70,245	***1***
Gross Profit (200,700 × 65%)			130,455	***2***
Less expenses				
Advertising	5,250			
Less prepaid	750	4,500		***2***
Wages	47,250			
Add accrued	9,450	56,700		***3***
General expenses	11,250			
Add accrued	2,250	13,500		***2***
Depreciation				
Machinery		4,500		***3***
Vehicles		4,800	84,000	***2***
Net Profit			46,455	***(20)***

BALANCE SHEET AS AT 30 June Year 2

	£	£	£		
FIXED ASSETS	Cost	Agg Depn	NBV		
Machinery	100,000	14,500 ***2***	85,500		
Vehicles	48,000	14,400 ***2***	33,600		
	148,000	28,900	119,100		
Current Assets					
Stock	41,955			***1***	
Debtors	23,200			***1***	
Bank	46,150			***4***	
Advertising prepaid	750	112,055		***1***	
Less Current Liabilities					
Wages due	9,450			***1***	
General expenses due	2,250			***1***	
Creditors	16,300	28,000		***1***	
			84,055		
			203,155		
FINANCED BY					
Capital at start	168,700			***3***	
Add Net Profit	46,455			***1***	
		215,155			
Less Drawings		12,000		***1***	
			203,155		
				(19)	***(39)***

(c) Value of Insurance Claim

Fixed Assets	119,100	***1***		
Stock	41,955	***1***		
	161,055			
Add Lost profits	46,455	***2***		
Value of Insurance claim	207,510		***(4)***	

(50 marks)

Question 2

PART A

WORKING NOTES

		ANDERSON PLC	WATSON PLC
(i)	**Gross Profit**		
	Sales – COGS	480 – 338	400 – 288
	Gross Profit =	142	112
	Gross Profit Ratio		
	GP ×100/Turnover	142 × 100 / 480	112 × 100 / 400
		29.58%	**28.00%**

Anderson PLC obtain more favourable purchase price
Agree with statement because
Gross profit percentage is slightly more favourable
Anderson's Gross Profit is 1.58% higher than Watson's ***(4)***
OR

	Mark-up		
	Gross Profit × 100/COGS	142 × 100 / 338	112 × 100 / 288
		42.01%	38.89%

Agree because Anderson has a higher mark-up

(ii)	**Expenses Ratio**		
	Expenses × 100/turnover	72 × 100 / 480	76 × 100 / 400
		15.00%	**19.00%**

Anderson PLC is more efficient at controlling expenses
Agree with this statement because
Anderson plc expense ratio is 4% lower than Watson plc
For every £ of sales Anderson spends 15p on expenses whereas
Watsons spends 19p ***(4)***

(iii)	**Debtors Turnover**		
	Average Debtors × 365 / Credit Sales	40 × 365 / 480	40 × 365 / 400
	Days	**31**	**37**

Anderson PLC has better credit control
Agree with this statement
They collect debts on average 6 days quicker than Watson plc ***(4)***

(iv) Rate of Stock Turnover

Cost of goods sold		338	288
Average Stock		56	48
	Times	**6.04**	**6.00**

Anderson PLC has more rigorous stock control system
Disagree with this statement
Both companies have almost the same Rate of stock turnover ***(4)***

(v) Turnover to Fixed Assets

Turnover	480	400
Fixed Assets	240	200
	2:1	**2:1**

Anderson PLC make better use of their fixed assets in the business
Disagree with this statement
Both companies have exactly the same ratio showing that they use fixed assets with the same efficiency ***(4)***

(20)

PART B

(a)

		Bowlers PLC	Rounders PLC	
(i)	**Dividend Yield**			
	Ordinary dividend per share ×100	10p × 100	8p × 100	
	Market price per share	£1.75	£1.50	
		5.71%	**5.33%**	***2***
(ii)	**Dividend Cover**			
	NP after tax – Pref Dividends	150,000 – 12,500	350,000	
	Dividends on Ordinary Shares	£20,000	£80,000	
	times	**6.88**	**4.38**	***2***

Working Notes for (ii)

Preference Dividends	5% × £250,000	
	£12,500	
Ordinary share dividends	200,000 × 10p	1,000,000 × 8p
Dividend paid	20,000	80,000

(iii)	**Earnings per share**			
	NP after tax – Pref Dividends	150,000 – 12,500	350,000	
	No of Ordinary Shares	200,000	1,000,000	
		£0.69	**£0.35**	***2***
(iv)	**Price/earnings Ratio**			
	Market price per share	£1.75	£1.50	
	Earnings per Share	£0.69	£0.35	
	times	**2.54**	**4.29**	**2**

(8)

(b) **(i)** Before making a recommendation the following should be considered

- Dividend Yield allows shareholders to compare the return on their investment at current market price rather than the nominal value of the share. Bowlers plc has a slightly better dividend yield than Rounders plc indicating that they have a better performance than Rounders plc and that the client would receive a better return. ***2***

- The Dividend cover shows that Bowlers plc retains more of its profits in the business in the form of reserves and for reinvestment in the company. This may benefit the client in the future with increased share price. However if the client is looking for income, Rounders plc distributes more of its profits to its shareholders. ***2***

- The earnings per share may be a better indicator to potential investors than either the rate of dividend or the dividend yield. However it can be influenced by the capital gearing of the company. Bowlers plc shows a much better earnings per share than Rounders plc. ***2***

- The Price/earnings ratio shows how the market price of the share compares with its earnings. It would cost Bowlers plc 2.55 times its earnings to buy a share whereas Rounders plc would cost 4.29 times its earnings. As share prices might increase this might be a good time to purchase shares in Bowlers plc. ***2***

  Taking into account the above I would recommend that the client purchase shares in Bowlers plc.

(8)

(ii) Capital Gearing Ratio

Fixed Interest Bearing Capital	250,000	500,000		
Ordinary Shares	200,000	1,000,000	***1***	
	1.25	0.5		
	1.25:1	0.5:1	***1***	***(2)***

(iii) Bowlers plc is a more highly geared company and in times when profits are high the client would benefit from purchasing ordinary shares in this company as they would receive a good share of the profits, in times of poor profits they would receive little or no dividend. ***2***

(20)

(40 marks)

Question 3

(a) (i)

	£000s	£000s	
Cost of goods sold:			
Opening Stock	250		
Add Purchase	500		***1***
Add carriage inwards	10		***1***
		760	
			1 for both stocks
Less Closing Stock		188	
		572	
Depreciation of equipment	128		***2***
Wages and Salaries	£300	428	***1***
Cost of sales		1000	***6***

(ii) Selling and Distributing Expenses

	£	£	
Wages and Salaries	£400		***1***
General Expenses	83		***1***
Depreciation Vehicles	108	£591	***1***
			3

(iii) Administration Expenses

	£	£	
Wages and Salaries	£300		***1***
General Expenses	332		***1***
Depreciation Equipment	32		***1***
Depreciation Vehicles	12		***1***
Auditors' fees	15		***1***
Discounts (Net)	10		***1***
Directors' fees	65	£766	***1***
			7

Working Notes
Calculation of Dividends

Preference Shares	8% × 1,000,000	
	£80,000	***4***
Ordinary shares	1p × 5,000,000	
	£50,000	***4***

Working Notes

General Expenses	420			
Less Prepaid	5			
	415			
	COS	**Admin**	**S&D**	
Wages and Salaries	£1,000	30%	30%	40%
Split		£300	£300	£400
General Expenses	£415	nil	80%	20%
Split			332	83

Depreciation Equipment	1,000-200	**COGS**	**Admin**
Written down value	800	80%	20%
Depreciation 20%	160	128	32

Depreciation		**S&D**	**Admin**
Vehicles	600	90%	10%
Depreciation 20%	120	108	12

Bank	720
Less Dividends	130
	590

(16)

Merchant PLC
Profit and Loss Account for year ended 31 December Year 2

	£000s	£000s	£000s	
Sales			2,400	***1***
Less Cost of goods sold			1,000	
Gross Profit			1,400	
Less Selling and Distribution expenses		591		
Administration expenses		766	1,357	
Opening Profit			43	***1***
Add Interest received			25	***1***
			68	
Less Interest paid			40	***1***
Profit from ordinary activities			28	
Less Corporation Tax			45	***1***
Loss after tax			–17	
Dividends			130	***3***
Unappropriate losses			–147	

lose award if label omitted or not conseq

(8)

Balance Sheet as at 31 December Year 2

	£000s	£000s	£000s	
Fixed Assets				
Tangible Assets		3,030		***4***
Investments		60	3,090	***1***
Current Assets				
Stock	188			
Debtors	450			***1 for both***
Bank	590			***1***
Prepayments Gen Exps	5	1,233		***1***
Creditors: amounts falling due within one year				
Trade Creditors	80			
VAT	60			***1 for all 3***
Audit fee	15			
Corporation Tax	45			***1***
Debenture Interest due (40-20)	20	220		***2***
Net Current Assets			1,013	
Total Assets less Current Liabilities			4,103	
Creditors: amounts falling due after one year				
Debentures			400	***1***
			3,703	

Capital and Reserves				
Preference Shares	1,000			
Ordinary Shares	2,500	3,500	***1 for both***	
Share Premium	100		***1***	
Profit & Loss Account (250-147)	103		***1***	
		3,703	**(16)**	**(24)**

Tangible Assets:

	Equipment	Vehicles	Land and W	
	£000s	£000s	£000s	
Cost 1 Jan Year 2	1,000	600	2,000	
Less Prov for Depn				
1 Jan Year 2	200	90		***1 each = 2***
Charge for year	160	120		***1 each = 2***
	360	210	–	
Net Book Value	640	390	2,000	

Tangible Assets	3,030		***4***

Question 4

(a) The purpose of a Cash Flow Statement is to show the actual movements of cash ***(1)*** into and out of the business ***(1)*** during the accounting period.

It shows the true liquidity of the business organisation. ***(1)***

It highlights the relationship between profitability and cash generating ability.

To prepare this statement the accountant would require:

an opening balance sheet ***(1)***
a closing balance sheet ***(1)***
the profit and loss account which links the 2 balance sheets. ***(1)*** ***(6)***

(b) The Cash Flow Statement contains the following sections:

- **Net Cash flow from operating activities** ***(1)***

  Operating activities provide the main source of cash for the organisation. ***(1)*** This figure is usually calculated in Note 1 when the Operating profit is reconciled with the Net cash flow from operating activities. ***(1)***

  Non-cash expenses are added back to the operating profit and non-cash income is subtracted. ***(1)***

  There is no actual cash involved in the above, it is merely a book-keeping adjustment. ***(1)***

  The operating profit figure is firstly adjusted for Non-cash movements ***(1)*** – depreciation, gain/loss on sale of fixed assets, increase/decrease in provision for doubtful debts. ***(1)***

  Then for movements in operating assets and liabilities ***(1)*** – changes is Stock. Debtors and Creditors. ***(1)***

- **Returns on Investments and Servicing of Finance** ***(1)***

  This section shows the amount of cash outflows in the form of Preference Dividend actually paid during the year ***(1)*** and will include any amount owed at the start of the year for the previous financial period or interim dividends paid during the year. ***(1)***

  Details of interest paid to debenture holders or details of interest received by the business. ***(1)***

- **Taxation** ***(1)***

  This is the actual amount of Corporation Tax paid during the year and will not necessarily be the amount shown in the profit and loss account ***(1)*** as Corporation Tax is generally paid in arrears. ***(1)***

  The figure will be the Tax amount paid which was due at the end of the previous financial year. ***(1)***

- **Equity Dividend Paid** ***(1)***

  This shows details of dividends paid during the year and will include the final dividend due for the last financial year ***(1)*** and any interim payment made during the year. ***(1)***

- **Capital Expenditure and Financial Investment** ***(1)***

  Under this heading will be details of any cash inflow from the sale of fixed assets or investments ***(1)*** and cash outflows for the purchase of fixed assets or investments. ***(1)***

- **Management of Liquid Resources** ***(1)***

  Under this heading will be details of any purchase or sale of current asset investments. ***(1)***

- **Financing** ***(1)***

  Under this heading will be details of any cash inflows from the issue of share capital or debentures ***(1)*** and
  Cash outflows from the redemption of shares or repayment of debentures ***(1)***
  Cash inflows from the raising of a long-term loan eg mortgage and
  Cash outflows showing the repayment of a long-term loan. ***(1)*** ***(24)***

(30 marks)

Question 5

(i) Goodwill

Goodwill occurs when one company (parent company) gains control of another (subsidiary) by purchasing a controlling stake ie more than 50% of the subsidiary's voting shares.

If the price is greater than the Balance Sheet value goodwill is created.
Where the price is less than the Balance Sheet value negative goodwill is created.

Goodwill can be calculated in 2 ways:

- When all the shares are purchased in the subsidiary ie a wholly owned subsidiary, the goodwill is calculated by deducting the value of the Ordinary shares and reserves of the subsidiary from the total price paid by the parent company.
- Where control is obtained, but not all the shares are purchased, the goodwill will be calculated by deducting the appropriate % of the value of the shares and reserves of the subsidiary from the purchase price.
- Goodwill will appear as an Asset in the Balance Sheet.
- May be written down over a number of years.
- Goodwill written off is deducted from Consolidated Reserves

2 marks each point maximum 6

(ii) Post-acquisition Profits

Post-acquisition profits are profits made by the subsidiary after it has been purchased by the parent company.

- The amount of post-acquisition profit is calculated by comparing the reserves and profit and loss balances of the subsidiary company at the date of acquisition with the value at the end of the trading year in question.
- Increases will be treated as profits and the Group's share will be added to the consolidated reserves.
- The remainder of the post-acquisition profits will be added to the Minority Interest.

2 marks each point maximum 6

(iii) Minority Interest

Minority interests will occur when one company gains control (more than 50%) of another but does not purchase all of the shares. Some of the shares will remain with the original shareholders.

- Percentage of the company held by the original shareholders is calculated.
- The percentage is applied to the Net Asset value of the subsidiary company to calculate the Minority Interest.
- Minority Interest value will appear in the financed by section of the Balance Sheet and should be shown separately from the Capital and Reserves of the Parent Company.

2 marks each point maximum 6

(iv) Unrealised Profits

Unrealised Profits occur when goods have been sold by one company in the group to another company in the group, eg from parent company to subsidiary company and not sold on outside the group.

- If the goods have not been sold, the group will have made no profit.
- The goods will be included in the subsidiary company's stock at the higher price they paid for them.
- The price the goods are sold to the subsidiary company will be greater than the purchase price the parent company paid.
- However from the groups' point of view the goods should be valued at the parent company's purchase price.
- The unrealised profits must be deducted from the consolidated reserves and consolidated stock figure.
- Where some of the goods sold to the subsidiary company have been sold to customers.
- Calculate the total profit to be made from the sale of the goods.
- Calculate the percentage unsold and apply this figure to the total profit.
- Reduce the profits and closing stock figure by this amount.

2 marks each point maximum 6

(v) Consolidated reserves

Any reserves of profits etc which the subsidiary company had on acquisition are treated in the consolidated balance sheet in the same way as the ordinary share capital – they will not appear.

- They may simply be called 'profit and loss', or 'consolidated profit and loss'.
- On consolidation, the consolidated reserves will have the same value as the profit and loss balance of the parent company.
- Consolidated reserves may be increased by post acquisition profits***(2)*** and reduced by unrealised profits. ***(2)***

2 marks each point maximum 6

(30 marks)

SECTION B

Question 6

(a) (i)

Total Overhead	£38.792	(19406 + 10164 + 9222)	***1***
Direct Labour Hours	9680	(2000 + 2000+ 4000 + 1680)	***2***
Factory Wide Rate	£4		

(ii)

Product	Rate per Unit		
W	£40	(10 × 4)	***1***
X	£32	(8 × 4)	***1***
Y	£40	(10 × 4)	***1***
Z	£32	(8 × 4)	***1***

(b) (i)

		Product					
Department		W	X	Y	Z	Total	
Machining	Labour Hours	1000	1000	2000	840	4840	***2***
	Machine Hours	800	500	1200	630	3130	***3***
Assembly	Labour Hours	600	600	1200	504	2904	***2***
Finishing	Labour Hours	400	400	800	336	1936	

Total Units Produced	1060	(200 + 250 + 400 + 210)		***2***

Overhead Absorption Rates

Machining	£6.20	per m/h	(19406/3130)	***1***
Assembly	£3.50	per l/h	(10164/2904)	***1***
Finishing	£8.70	per unit	(9222/1060)	***1***

(ii) Overhead Charge Per Unit

	Product					
Department	W	X	Y	Z		
Machining	£24.80	£12.40	£18.60	£18.60		***2***
Assembly	£10.50	£8.40	£10.50	£8.40		***2***
Finishing	£8.70	£8.70	£8.70	£8.70		***2***
	£44.00	£29.50	£37.80	£35.70		
	×200	×250	×400	×210		
	£8,800	£7,375	£15,120	£7,497	£38,792	

(c) (i)

	Product W	X	Y	Z	Total	
Number of Production Runs	4	5	8	3	20	***2***
Number of Requisitions	10	10	10	10	40	***1***
Number of Batches Sold	20	25	40	21	106	***2***

Absorption Rates				
Set up Costs	£1,000.00	per production run	(20000/20)	***2***
Material Handling	£200.00	per requisition	(8000/40)	***2***
Quality Control	£274.60	per production run	(5492/20)	***2***
Order Despatch	£50.00	per batch sold	(5300/106)	***2***

(ii)

	Product W	X	Y	Z	
Set up Costs	£4,000.00	£5,000.00	£8,000.00	£3,000.00	***2***
Material Handling	£2,000.00	£2,000.00	£2,000.00	£2,000.00	***2***
Quality Control	£1,098.40	£1,373.00	£2,196.80	£823.80	***2***
Order Despatch	£1,000.00	£1,250.00	£2,000.00	£1,050.00	***2***
Total	£8,098.40	£9,623.00	£14,196.80	£6,873.80	

(iii) Overhead Charge Per Unit £40.49 £38.49 £35.49 £32.73 ***4***

(50 marks)

Question 7

(a) (i)

	Product A	B	C	D	Total	
Selling Price	£115	£44	£80	£96		
Less Unit variable costs:	£35	£24	£40	£56		
Contribution per unit	£80	£20	£40	£40		***2***
Weighting	0.125	0.25	0.375	0.25		***2***
Weighted average contribution	£10	£5	£15	£10		***4***

(ii)

Units	1000	2000	3000	2000	8000	
Contribution (units × cont pu)	£80,000	£40,000	£120,000	£80,000	£320,000	***2***
Less Fixed costs					£160,000	***1***
Profit for Period 2					£160,000	

(iii)

Break-even point	4,000	units	(£160000/£40)		***2***
Per product	A	B	C	D	
Units	500	1000	1500	1000	***2***

(iv)

Budget period	60	days		
Days to break even	30	days	((4000/8000) × 60)	***2***

(v)

Profit before tax	96000	((72000/3) × 4)		***2***
Add fixed costs	160000			***1***
Contribution required	256000			
Sales required	6400	units	(£256000/£40)	***1***

By product	A	B	C	D		
Units	800	1600	2400	1600		***2***
Sales value	£92,000	£70,400	£192,000	£153,600	£508,000	***2***

(b) **(i)** Product E at £90

	A	B	C	D	E		
	£80/2	£20/0.8	£40/2.5	£40/3.2	£40/2		
Cont per lab/hr	£40.00	£25.00	£16.00	£12.50	£20.00		***5***
Priority	1	2	4	5	3		
Hours allotted	2000	1600	5200	3200	6000	18000	
Contribution	£80,000	£40,000	£83,200	£40,000	£120,000	£363,200	***2***
Less fixed costs						£250,000	***1***
Revised profit for period 2						£113,200	

Product E at £120

	A	B	C	D	E		
	£80/2	£20/0.8	£40/2.5	£40/3.2	£70/2		
Cont per lab/hr	£40.00	£25.00	£16.00	£12.50	£35.00		***1***
Priority	1	3	4	5	2		
Hours allotted	2000	1600	7200	3200	4000	18000	
Contribution	£80,000	£40,000	£115,200	£40,000	£140,000	£415,200	***2***
Less fixed costs						£250,000	
Revised profit for period 2						£165,200	

At £90 profits will fall by 160000 – 113200 £46,800 ***1***
At £120 profits will rise by 165200 – 16000 £5,200 ***1***

(ii) Wagner should not produce Product E at £90. At £120 Wagner should consider the risk of investing a further £90,000 per period to earn only £5,200 additional profit – probably not worth the risk. ***2***

Alternatively

(c) **(i)**

Product E at £90				Product E at £120			
Gain E	6000 @ £20 *1*	£120,000 *1*		Gain	6000 @ £35 *1*	£140,000	***1***
Lose D	3200 @ £12.50	£40,000 *1*		Lose	3200 @ £12.50	£40,000	***1***
Lose C	2300 @ £16 *1*	£36,800 *1*		Lose	300 @ £16	£4,800	***1***
Lose	Fixed Costs	£90,000 *1*		Lose	Fixed Costs	£90,000	
Change in Profit		- £46,800 *1*		Change in Profit		£5,200	***1***

(ii) Same advice

(40 marks)

Question 8

PART A

	Not Required in Answer	£	
Budgeted Sales		1,200,000	(4000 × £300)
Costs:			
Materials	256,000		(32,000 × £8)
Labour	400,000		
Variable Overhead	120,000		
Fixed Overhead	60,000		
		836,000	
Budgeted Profit		£364,000	
		£	
Actual Sales		1,232,250	(3975 × £310)
Costs:			
Materials	259,500		
Labour	394,450		
Variable Overhead	115,000		
Fixed Overhead	61,000		
		829,950	
Actual Profit		£402,300	

(a) Standard Cost of Actual Sales

	£		
Materials	254,400	256000/4000 × 3975	***1***
Labour	397,500	400000/4000 × 3975	***1***
Variable Overhead	119,250	120000/4000 × 3975	***1***
Fixed Overhead	59,625	3975 × 15	***1***
	£830,775		***4***

(b) Variances

(i)	Sales Price	–£39,750	(3975 × 300) – (3975 × 310)	Favourable	***2***
(ii)	Sales Volume	£7,500	300 × (4000 – 3975)	Adverse	***2***
(iii)	Material Price	–£6,700	(31600 × 8) – 259500	Adverse	***2***
(iv)	Material Usage	£1,600	(8 × 3975 × 8) – 31600	Favourable	***2***
(v)	Labour Rate	£8,050	(40250 × 10) – 394450	Favourable	***2***
(vi)	Labour Efficiency	–£5,000	10 × (39750 – 40250)	Adverse	***2***
(vii)	Var O/h Expenditure	£5,750	(40250 × 3) – 115,000	Favourable	***3***
(viii)	Var O/h Efficiency	–£1,500	3 × (39750 – 40250)	Adverse	***3***
(ix)	Fixed O/h Exp	–£1,000	(4000 × 15) – 61,000	Adverse	***3***
(x)	Fixed O/h Volume	–£375	(3975 × 15) – (4000 × 15)	Adverse	***3***
					24

(28)

PART B

Ice plc Budgeted Profit Statement for Month 7

Activity level	Units			
80%	8000			
Sales		£78,000	4000 × £10 + 4000 × £9.50	***1***
Less Costs				
Materials	£4,800		((1200 × 3)/6000) × 8000	***2***
Labour	£19,200		((1800 × 8)/6000) × 8000	***2***
Direct Expenses	£2,000		(1500/6000) × 8000	***2***
Maintenance	£1,200		((600/6000) × 8000) + 400	***2***
Heating and Lighting	£1,600			
Rent and Rates	£2,000		**All 3 costs**	***1***
Salaries	£10,000			
Miscellaneous Expenses	£3,400			***2***
		£44,200		
Budgeted Profit		£33,800		
				(12)

(40 marks)

Question 9

(a)

- (Expected output considers 'normal' process losses (if any).)
- (Inevitable in the context of the process.)
- These are credited to the process account at scrap value.
- Unless the losses are waste which has no value.
- Normal losses increase the cost per unit of finished goods.

- ('Abnormal' losses are those in excess of normal expected losses.)
- Credited to process account at full (finished goods) value (at the point of loss).
- Often not identified until process complete.
- Do not affect the cost per unit of finished goods.
- Transferred to abnormal loss account (dr).
- When sold credited to abnormal loss account at scrap value realised (if any)
- Balance remaining on abnormal loss account transferred directly to profit and loss account as an expense.

- 'Abnormal gains' are made when output is greater than expected.
- Normal loss is credited to process account.
- Actual good output is credited to process account.
- Abnormal gain is debited to process account at the full finished goods value.
- Transferred to abnormal gain account (cr).
- Transferred directly to profit and loss account as income.
- Does not affect the cost per unit of finished goods.

- Abnormal losses, gains and good finished output are valued at a cost per unit based upon the formula:
- (total process costs-scrap value of normal loss)/expected output.

Award 1 mark for each point correctly made. **Max 12**

(b) Candidates' answer should refer to difficulties/problems caused by:

- the method used to apportion total fixed costs (different methods will result in different amounts being charged to the various processes in hand)
- the existence of work in progress at the start and end of the process period
- the degree of completeness of the various elements of cost
- the calculation of equivalent units of production
- whether the WIP is to be valued using a FIFO or Weighted Average system
- the number and nature of process outputs
- the treatment of by-products
- apportioning process costs between joint products
- using output, sales value at separation or final sales value as alternative methods (choice must be made).

Award 2 marks to each point correctly made. **Max 18**

(30 marks)

Question 10

(a)

- Mutually exclusive projects are those where, after comparison, choosing one investment automatically means rejection of all other possible investments.
- This can be due to lack of capital or
- Alternative projects providing the same service
  eg comparing competing firms bidding to install an IT system.
- The mutually exclusive projects may all be viable, but only one can be accepted.

- Alternative (or independent) projects are those which stand alone and are different in nature from each other
- the decision (after appraisal) may be to accept any or all of the alternatives depending only upon the capital available.

Award 2 marks for each point correctly made. **Max 6**

(b) Accounting Rate of Return

This is the ratio of average annual net profit before interest and tax to the capital invested in the project. ***(1)***

Advantages

- It is an identifiable and familiar profitability ratio similar to Return on Capital Employed so is understandable to most managers and is ***(1)***
- Easy to calculate and ***(1)***
- Emphasises the necessity of profit. ***(1)***

Max 2

Disadvantages

- Does not consider the time value of money. ***(1)***
- It ignores the timing of cash outflows and inflows. ***(1)***
- There is no target rate of return. ***(1)***
- It may lead to choosing a project which will only begin to maximise profits in later years, risking losses if market conditions change. ***(1)***

Max 2

Payback

Based upon an estimate of the time it will take a project to earn enough cash to cover its initial cost. ***(1)***

Advantages

- Very easy to understand and calculate. ***(1)***
- Can compare mutually exclusive projects. ***(1)***
- May encourage growth by favouring projects providing a quick return. ***(1)***
- Reduces the time during which liquidity is at risk. ***(1)***

Max 2

Disadvantages

- Calculation and timing of net cash flows may be difficult. ***(1)***
- Ignores profitability. ***(1)***
- Ignores net cash inflows after payback period. ***(1)***
- Ignores time value of money. ***(1)***

Max 2

Net Present Value

This is the calculation of the present day value of expected future cash inflows and outflows based upon an estimated rate of inflation. ***(1)***

Advantages

- Importance of liquidity is emphasised. ***(1)***
- Time value of money is considered. ***(1)***
- Comparison of NPVs of competing projects is simple. ***(1)***
- Shows increase in investors' wealth. ***(1)***

Max 2

Disadvantages

- Selection of an appropriate rate of return is difficult. ***(1)***
- Difficulties in estimating net cash flow values. ***(1)***
- Uncertainties in timing of cash flows. ***(1)***
- Calculations are more complex using discount factors. ***(1)***

Max 2

Internal Rate of Return

Using discounting IRR allows calculation of the rate of return necessary to recover the initial investment in a project, allowing for the cost of capital. ***(1)***

Advantages

- Emphasises liquidity. ***(1)***
- Timing of cash flows is considered. ***(1)***
- Not necessary to select a required rate of return. ***(1)***
- A clear return on investment is calculated. ***(1)***
- Careful consideration has to be given to accurately estimate the initial outlays. ***(1)***

Max 2

Disadvantages

- Difficult to understand. ***(1)***
- Calculations difficult. ***(1)***
- Rate of return given is very approximate – depending upon range used in calculation. ***(1)***
- Results can be misleading if cash flows are negative or projects are mutually exclusive. ***(1)***

Max 2

Profitability Index

Compares the net present value of cash flows with the original investment. It shows the percentage increase in the capital invested generated by the project. Competing projects are ranked in order of profitability. ***(1)***

Advantages

- Importance of liquidity is emphasised. ***(1)***
- Time value of money is considered. ***(1)***
- Comparison of NPVs of competing projects is simple. ***(1)***
- Shows increase in investors' wealth. ***(1)***
- Easy to select the most profitable project(s) with the highest index value. ***(1)***
- Assesses profitability. ***(1)***

Max 2

Disadvantages

- Selection of an appropriate rate of return is difficult. ***(1)***
- Difficulties in estimating net cash flow values. ***(1)***
- Uncertainties in timing of cash flows. ***(1)***
- Calculations are more complex using discount factors. ***(1)***
- Cannot be used to compare projects of different scales. ***(1)***

Max 2

(c)
- DCF methods are NPV and IRR.
- NPV and IRR may provide conflicting advice
- because IRR does not take initial outlay into account.
- IRR assumes that excess revenues are invested at the IRR rate which seldom occurs.

Award 2 marks for each point correctly made.

Max 4

[END OF MARKING INSTRUCTIONS]