

Mark Scheme (Results)

October 2016

Pearson Edexcel IAL in Accounting (WAC02) Paper 01 Corporate and Management Accounting

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at <u>www.edexcel.com</u> or <u>www.btec.co.uk</u>. Alternatively, you can get in touch with us using the details on our contact us page at <u>www.edexcel.com/contactus</u>.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

October 2016 Publications Code WAC02_01_1610_MS All the material in this publication is copyright © Pearson Education Ltd 2016

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

1(a)(i)			W1 Cost of Sales		
			Opening inventory	1 758 000	
Statement of Comprehensive Income for			Direct materials	7 943 500	
Compass Tablets plc for year ending 30th September 2016			Less discount received	-619 000√	both
			Factory depreciation	420 000√	
Revenue	29 870 000	\checkmark	Machinery depreciation	320 000√	
			Direct factory labour	2 970 000	
Cost of sales	(11 594 500)	√ o/f	Factory fuel	226 000√	both
			Closing inventory	-1 424 000√	both
Gross profit	18 275 500	√ o/f		11 594 500	5 x √
Distribution costs	(6 156 750)	√ o/f	W2 Distribution Costs	+	-
			Advertising and marketing	858 000	-
Administrative expenses	(5 126 100)	√ o/f	Discount allowed	1 064 000√	both
	· ·		Warehouse depreciation	193 750√	
Other Income - Interest receivable	6 200	\checkmark	Depreciation on motor vehicles	360 000√	
			Fuel costs	525 000	
Financial cost	(650 000)	\checkmark	Motor vehicle driver wages	1 026 000√	both
			Sales commission	2 130 000√	
Profit on ordinary activities before tax	6 348 850	√ o/f		6 156 750	5 x √
Corporation tax	(1 350 000)		W3Administrative Expenses		
			Bad debts written off	323 000√	
Profit on ordinary activities after tax	4 998 850	√ o/f	Head Office staff	1 514 000	
			Head Office fuel	97 000√	both
Total 23 x \checkmark	10 x √		Head Office expenses	3 192 100√	
				5 126 100	3 x √

1(a)(ii)

Statement of Financial Position of Compass Tablets plc at 30 Sept 2016

ASSETS	1			
Non-current Assets	Carry over			
Property, plant & equipment	value			
Factory buildings	15 960 000			
Warehouse premises	5 425 250	\checkmark		
Production machinery	1 882 000	\checkmark		
Motor vehicles	452 000	\checkmark		
		23 719 250		
Intangibles - Patents		750 000	\checkmark	
			24 469 250	
Current Assets				
Inventories		1 424 000	\checkmark	
Trade and Other Receivables				
Trade receivables	3 240 000			
Prepayments	18 900			
		3 258 900		
Cash and Cash Equivalents				
Bank	656 000			
Cash	342 000	√ both		
		998 000		
			5 680 900	
Total Assets			30 150 150	
			_	

EQUITY AND LIABILITIES			_	
Equity				
Share Capital				
Ordinary shares of £0.25		15 050 000	\checkmark	
Retained earnings		2 644 150	√ o/f	
			17 694 150	
Non-current Liabilities				
Debenture 6.5% 2020	10 000 000	\checkmark		
			10 000 000	
Current Liabilities				
Trade and other payables				
Trade payables	1 288 000			
Other payables	49 000	√ both		
Advertising owing	124 000	\checkmark		
Debenture interest	325 000	\checkmark		
		1 786 000		
Provisions				
Corporation tax		670 000		
			2 456 000	
Total Equity and Liabilities			30 150 150	√ o/f
Total 17 x $$				

Strengths

Gross Profit is good $\sqrt{}$ at 61% of revenue. $\sqrt{}$

Net Profit before tax is good $\sqrt{}$ at 21% of revenue. $\sqrt{}$ This compares very well to eg bank deposits in times of low interest rates. $\sqrt{}$

Net Profit before tax for this year is £6.3m OR Net profit after tax for this year is £4.9m – very good. $\sqrt{}$ Return on Capital Employed is excellent $\sqrt{}$ at 25.27%, using the end year figure for capital employed $\sqrt{}$ Earnings per share is 8.3 pence per share $\sqrt{}$ which is good. $\sqrt{}$ Current ratio is good $\sqrt{}$ at 2.31:1. $\sqrt{}$

Acid ratio is good $\sqrt{\text{ at } 1.73:1.}$

Working capital is good $\sqrt{}$ at £ 3 224 900. $\sqrt{}$

Company has tax bill of £670 000 to pay in 3 months, $\sqrt{}$ and £998 000 cash and bank. $\sqrt{}$

Gearing is good $\sqrt{}$ at 36%. $\sqrt{}$

Compass is in the tablet computer sector and there may be opportunities for expansion and investment. $\sqrt{}$

Weaknesses

Current ratio may be a little too high $\sqrt{}$ liquid funds maybe are not being used efficiently. $\sqrt{}$ Acid ratio is too high. $\sqrt{}$ Company has taken out a debenture of £10m until 2020 $\sqrt{}$ and will have to pay interest. $\sqrt{}$

Maximum of 8 marks for arguing only one side.

Conclusion - 2 marks

Should relate to points made above.

E.g. Compass Tablets plc has had a good trading year $\sqrt{}$ and has no serious liquidity problems. $\sqrt{}$

(12)

Total for Question 1 = 52 Marks

Inflows	Products	Wee	ks	Price		Total			
Year 1	130		50	5.4		35 100			Γ
Year 2	150		50	5.6		42 000			Γ
Year 3	150		50	5.6		42 000			
Year 4	160		50	5.8		46 400			
Year 5	160		50	5.8		46 400			
Purchases	Products	wee	<u>ks</u>	Price		Total			
Year 1	5 000		1	2.7		13 500	\checkmark		
	130		49	2.7		17 199			
Year 2	150		50	2.8		21 000	\checkmark		
Year 3	150		50	2.8		21 000			
Year 4	160		50	2.9		23 200	\checkmark		
Year 5	160		50	2.9		23 200		4	
Running cost	s Per week	wee	<u>ks</u>			Deprectn		<u>Total</u>	
Year 1	280		50	14 000		4 000		10 000	
Year 2	280		50	14 000		4 000		10 000)
Year 3	300		50	15 000		4 000		11 000	
Year 4	300		50	15 000		4 000		11 000)
Year 5	320		50	16 000		4 000		12 000	
								3	
Cash Flow	<u>Inflow</u>	<u>Outfl</u>	ow	NCF					
Year 1	35 100	√ 40	699√	-5 599	√ o/f				
Year 2	42 000	√ 31	000√	11 000					
Year 3	42 000	32	000√	10 000	√ o/f both				
Year 4	46 400 v	√ 34	200√	12 200					
Year 5	46 400	35	200√	11 200	√ o/f both				
		3	Ę	5	3			18 marks	1

2(b)			
	NOF		
	NCF	Cumulative	
1	-5 599	-5 599	
2	11 000	5 401	√o/f
3	10 000	15 401	√o/f
4	12 200	27 601	

Payback period = 20 000 - 15 401 = 4 599 $\sqrt{o/f}$

= 3 years $(4599 \text{ o/f } x 12) \sqrt{}$ = 3 years $\sqrt{} \text{ o/f } 4.52 \text{ months } \sqrt{} \text{ o/f}$

(7)

2(c) (i)

NPV		<u>17%</u>		
Year 0	-20 000	1	-20 000.00√	
Year 1	-5 599	0.855	-4 787.15	
Year 2	11 000	0.731	8 041.00	
Year 3	10 000	0.624	6 240.00	
Year 4	12 200	0.534	6 514.80	
Year 5	11 200	0.456	5 107.20 √ all :	5
			1 115.86√	

2(c)(ii)					
NPV		<u>20%</u>			
Year 0	-20 000	1	-20 000.00	\mathbb{N}	
Year 1	-5 599	0.833	-4 663.97	•	
Year 2	11 000	0.694	7 634.00		
Year 3	10 000	0.579	5 790.00		
Year 4	12 200	0.482	5 880.40		
Year 5	11 200	0.402	4 502.40	√ all 5	
			-857.17	·√	

(3)

2(d) Internal Rate of Return = Lower rate $\sqrt{+}$ (% difference between rates \sqrt{x} <u>NPV using lower % rate</u>) $\sqrt{}$ Difference between NPVs) $\sqrt{}$

= $17\% \sqrt{+} (3\sqrt{x} \underline{1115.86}) \sqrt{1973.03} \sqrt{1973.03}$

= 18.7% √o/f

(9)

2(e) Answers may include:

Payback method -

this method measures the period of time it takes the cash flows of a project $\sqrt{}$ to repay the cost of the investment $\sqrt{}$ Advantages:

Simple to use $\sqrt{}$ and easy to understand the results. $\sqrt{}$ Can be used to compare different projects $\sqrt{}$ with different initial costs. $\sqrt{}$

Disadvantages:

Does not take account of the falling value of money $\sqrt{}$ over time. $\sqrt{}$

May not be suitable for projects that have uneven cash flows $\sqrt{e.g.}$ a project may payback quickly and look attractive, \sqrt{but} have little cash inflows after payback $\sqrt{}$

Internal Rate of Return (IRR) method -

This method calculates the discounted cash flow that the project is expected to achieve $\sqrt{}$ ie the rate at which the net present value is zero $\sqrt{}$

Advantages:

Takes account of the falling value of money $\sqrt{}$ over time. $\sqrt{}$

Tells the business the exact discounted cash flow rate of return $\sqrt{}$ which the project is expected to achieve. $\sqrt{}$

Disadvantages:

Not simple to use, $\sqrt{}$ as formula is quite complicated. $\sqrt{}$ Can be time consuming $\sqrt{}$ as choosing rates for cost of capital can be hit and miss. $\sqrt{}$

Maximum for arguing one side only is 8 marks.

Conclusion - 2 marks

Payback method is good to use as a first screening of a project, $\sqrt{}$ but IRR gives a better indication of the expected return. $\sqrt{}$

(12)

Total for Question 2 = 52 marks

~	1
~~~	(a)
5	(a)

5 (u)							
Figures are in £ millions	Ordinary £1Share Capital	Share Premium	Retained Earnings	General Reserve	Capital Replacement Reserve	Revaluation Reserve	Total Equity
	£m	£m	£m	£m	£m	£m	£m
(i) Balance at October 1st 2015	400	100 √ both	(4) √	2	1	27 √ all 3	526 √
(ii)	100 √	5 √					105
(iii)			20 √			(20) $$	0
(iv)			(2) √				(2)
(v)			2 √	(2) √			0
(vi)			(8) √		8 √		0
(vii)			(4) √				(4)
(viii)			7 √				7
Balance at 30 September 2016	500	105 √ both	11 √	0	9	7 √ all 3	632 √ o/f

(20)

(a)(iii) is an example of the realisation concept.  $\sqrt{}$ Profits are not taken into account until realised.  $\sqrt{}$ When the property was revalued upwards, the "profit" had not yet been realised.  $\checkmark$ When it was sold the profit was realised and could be taken to the Statement of Comprehensive Income/retained earnings.  $\sqrt{}$ 

#### Also acceptable

This is an example of the accruals concept.  $\sqrt{}$ Similar argument as above.

(4)

<b>3(c)</b> Two examples of w Any 2 from – property	hat the Ca plant	pital Replacemer equipment	•	(one √ per item) motor vehicles etc	
<b>3(d)</b> No final dividend w OR Revenue reserves to			ed Earnings√	account was a debit $\checkmark$	(2) (2)

3(e) Maximum amount payable = 
$$(11\sqrt{+9}\sqrt{})$$
 = 4 pence per share  $\sqrt{0/f}$  (4)  
(400 + 100)  $\sqrt{}$ 

**3(f) (i)** Before 1 October 2015 = 
$$\frac{100}{400} \times 100 \sqrt{200} = 25\% \sqrt{200}$$
 (2)

(ii) On 1 December 2015 = 
$$\frac{5}{100} \times 100 \sqrt{5} = 5\% \sqrt{20}$$
 (2)

(**q**) Answers could include:

The difference is explained by the market price at the time of issue.  $\checkmark$ 

Before October 2015 the market price of a £1 share was/thought to be around £1.25.  $\sqrt{}$ 

In December 2015, the market price was around £1.05.  $\sqrt{}$ 

This is lower because the company made a loss in the year to 30 September 2015.  $\checkmark$ 

The market does not have so much confidence in the company in December 2015 when new share issue is made  $\sqrt{}$ 

(4)

## (h) Advantages of Rights Issues

Allows the company to raise funds  $\sqrt{}$  that can be used for the benefit of the company.  $\sqrt{}$ 

Funds could be used to pay dividends to shareholders  $\sqrt{}$  who did not receive a final dividend for 2015  $\sqrt{}$  who may be unhappy.  $\sqrt{}$ 

Existing shareholders get the first rights to buy the shares,  $\sqrt{}$  so

- administration costs  $\sqrt{}$  will be lower than a public issue,  $\sqrt{}$  if the rights are taken up.  $\sqrt{}$
- Existing shareholders do not see a dilution  $\sqrt{}$  of powers/ownership  $\sqrt{}$

The company may appear a "bigger" company  $\sqrt{}$  as it has a larger capital base.  $\sqrt{}$ 

A successful rights issue shows the shareholders have confidence in the company.  $\sqrt{}$ 

A rights issue helps banks maintain the capital base  $\sqrt{}$  that is required for banks.  $\sqrt{}$ 

## Disadvantages of Rights Issues

Costs of administration.  $\checkmark$ 

Rights may not all be taken up.  $\sqrt{}$  This may mean:

- extra costs of having issue underwritten  $\sqrt{}$  by e.g. merchant banks.  $\sqrt{}$
- new shareholders take up the shares,  $\sqrt{}$  so existing shareholders see powers diluted.  $\sqrt{}$

Shareholders were probably unhappy at not receiving a final dividend for 2015,  $\sqrt{}$  now they are being asked to pay up more cash,  $\sqrt{}$  which will make them even more unhappy.  $\sqrt{}$ 

If the market price of the shares falls below the issue price before the issue,  $\sqrt{}$  nobody will take up the rights issue.  $\sqrt{}$  Some ratios will now worsen,  $\sqrt{}$  due to the larger capital base.  $\sqrt{}$ 

E.g. Return on capital employed  $\sqrt{}$  Earnings per share  $\sqrt{}$  Dividends per share  $\sqrt{}$  Dividend yield  $\sqrt{}$  (max 2)

A rights issue may send out a signal to the market  $\sqrt{}$  that the company is short of funds,  $\sqrt{}$  so confidence in the company falls.  $\sqrt{}$  This may effect the Price Earnings ratio,  $\sqrt{}$  or even the credit rating of the company.  $\sqrt{}$ 

Maximum of 8 marks for arguing one side.

# **Conclusion 2 marks**

Chandani Banking plc could probably welcome the extra funds,  $\sqrt{}$  but they run the risk of upsetting the shareholders and the market with a rights issue.  $\sqrt{}$ 

(12) Total for Question 3 = 52 marks

Section B 4(a) (i) Fixed Costs -Variable costs per unit per year £4 380 (0.54 + 3.50 + 0.03 + 0.25 + 0.12)  $\sqrt{}$ Loan Total £4.44 per unit  $\sqrt{o/f}$ Rent £11 100 Depreciation £3 900  $\sqrt{(any 3)}$ Electricity £1 820 £2 000 Contribution per unit Insurance £13 200 √ (next 3)  $(\pounds 8.99 - \pounds 4.440/f) \sqrt{=} \pounds 4.55 \text{ o/f } \sqrt{=}$ Manager £36 400 √ o/f Total FC <u>£36 400</u> o/f  $\sqrt{}$  = 8 000 games o/f  $\sqrt{}$ Break-even Point = £4.55 o/f √ (10) 4(a)(ii) Profit for Year 1 Sales = 200 x 52 x £8.99 £93 496√ = Less VC = 200 x 52 x £4.44 o/f =  $(\pounds 46 \ 176)\sqrt{o/f}$ = (£36 400) $\sqrt{o/f}$ Less FC Profit = £10 920 √ o/f (4)  $8\ 000\ \sqrt{} = 40\ \text{weeks}\ \sqrt{}$ **4(b) (i)** Break-even is after (3) 200 √ (ii) Yes, Pranja should invest in the project  $\sqrt{0/f}$ (1) Margin of safety =  $(10\ 400\ -\ 80000/f)\ \sqrt{}$  = 2 400 units o/f  $\sqrt{}$ 4(c) (2) Margin of safety = (£93 496 - £71 9200/f)  $\sqrt{}$  = £21 576 0/f  $\sqrt{}$ (2) Margin of safety =  $(52 - 40 \text{ o/f}) \sqrt{= 12 \text{ weeks o/f} \sqrt{}}$ (2)

# 4(d)

FOR use:

Break-even is a tool that allows a business to forecast profit/loss at different output levels.  $\checkmark$ 

Helps a business break down costs into fixed or variable.  $\checkmark$ 

Helps identify the margin of safety  $\sqrt{}$ 

Could be presented to a bank to help raise finance  $\checkmark$ 

BEP after 40 weeks means 12 weeks output and sales contribution will be profit,  $\sqrt{}$  which should give a reasonable profit margin for the year.  $\sqrt{}$ 

# AGAINST effectiveness

Cost and revenue figures are only predictions  $\boldsymbol{\sqrt{}}$ 

Analysis assumes straight lines (on graphs)  $\sqrt{}$  but these are likely to be curves  $\sqrt{}$  as discounts are given or received for bulk sales OR overtime worked at a higher rate.  $\sqrt{}$ 

Theory assumes that all output is sold  $\sqrt{}$  which may not happen/ some production left unsold. $\sqrt{}$ 

Many projects require more than 40 weeks in order to break-even,  $\sqrt{}$  and are still profitable overall  $\sqrt{}$ 

Maximum of 4 marks for arguing only one side of argument.

# CONCLUSION

Break-even analysis is one of a number of tools that can be used to aid business decision-making  $\sqrt{40}$  weeks break-even period would only apply to a small-scale project.  $\sqrt{}$ 

(8)

Total for Question 4 = 32 marks

5(a)(i) (£45 000 - £49 000) $$ = Loss (£4 000) $$	(2)
5(a)(ii) (£23 000 + £13 000) $$ = £36 000 $$	(2)
5(a) (iii) Advantage More /wider range in inventory which allows unexpected orders √ or large orders to be met. √ <u>Disadvantage</u> Greater costs of storing inventory√ eg rent, insurance, security √ Liquid funds/working capital is tied up √ and it may be put to better use elsewhere √	(2) (2)
<b>5(a)(iv)</b> (£65 000 + £31 000) $$ = £96 000 $$	(2)
<b>5(a)(v)</b> (£58 000 + £35 000) $$ = £93 000 $$	(2)
<b>5(a)(vi)</b> Size of loan = £40 000 $\sqrt{\frac{100}{8}} \sqrt{\frac{100}{8}} = £500 000 \sqrt{\frac{100}{8}}$	(3)
<b>5(a) (vii)</b> Indian Ocean Containers plc are in need of liquid funds $$ Shares are not paying sufficient dividends $$ Share price is falling / or has risen and gain is being taken $$	(3)
<b>5(a)(viii)</b> (£135 000 - £106 000) $$ = £29 000 $$	(2)
5(a)(ix) Year end bank balance = (£39 000 + £9 000) $$ = £48 000 overdraft $$ Yearly movement = (£135 000 - £48 000) $$ = £87 000 increase $$	(4)

# **Operating Activities**

Very important.  $\checkmark$  The business cannot survive in the long term without cash inflows from operations.  $\checkmark$ 

# **Investing Activities**

A negative cash flow could mean that the company is investing for the future  $\sqrt{\text{eg}}$  in non-current assets, or more modern technology.

A positive cash flow could indicate that the company is selling off non-current assets,  $\sqrt{}$  which may be worrying.  $\sqrt{}$  A positive cash flow could signify that the company is selling off non-core business,  $\sqrt{}$  which may be a good strategy.  $\sqrt{}$ 

# **Financing Activities**

A positive cash flow would be expected during the first year of trading,  $\sqrt{}$  as the company attracts finance in order to commence trading.  $\sqrt{}$ 

A positive cash flow would be good  $\sqrt{}$  if the company needs to attract funds in order to expand.  $\sqrt{}$ 

A positive cash flow would be bad  $\sqrt{}$  if the company needs to attract funds in order to survive/ meet debts etc.  $\sqrt{}$ 

A negative cash flow would be good  $\sqrt{}$  if the company is paying back debt.  $\sqrt{}$ 

A negative cash flow would be good  $\sqrt{}$  if it were paying high levels of dividends because they are making high profits.  $\sqrt{}$ 

Maximum of 4 marks for discussing one section.

# Conclusion

Operating activities is probably the most important, as they cannot survive without making cash inflows from operations  $\sqrt{\sqrt{}}$ 

(8)

Total for Question 5 = 32 marks

# <u>6 (a)</u>

(i)Inventory Budget							
	<u>December</u>		<u>January</u>		<u>February</u>		
Inventory	2400	$\checkmark$	3200		4000	$\checkmark$	(3)
(a)(ii)Production Budget							
	<u>December</u>		<u>January</u>		<u>February</u>		
For next month sales	12000		16000		20000		
Inventory adjustment	-5200	√o/f	800		800	√o/f	
Required good production	6800		16800		20800	√o/f	
Rejects	358	√o/f	884	√o/f	1095	√o/f	
Total production	7158	√o/f	17684	√o/f	21895	√o/f	(10)
(iii)Raw materials purchases (mls)							
(III) Naw Inaterials purchases (IIIIS)	December		January		February		
For production	71580		176840		218950	√o/f	
Wastage	1461		3609		4468	√o/f	
Total materials required	73041	$\checkmark$	180449	$\checkmark$	223418	√o/f	(5)
(iv)Raw materials purchases £							
	<u>December</u>		<u>January</u>		<u>February</u>		
Total cost	4017	√o/f	9925	√o/f	12288	√o/f	(3)
(v)Trade Receivables Budget							
	<u>December</u>		<u>January</u>		<u>February</u>		
	38000		12000		16000		
Sales	00000						

#### Advantages of Rejecting finished goods

By rejecting damaged goods/ goods not perfect, the company are assured that goods in the stores are of merchantable/ good quality.  $\sqrt{}$  This will ensure the brand name is not damaged /has a good reputation.  $\sqrt{}$  This is particularly important in the fragrance market,  $\sqrt{}$  where a quality brand name can command a premium price.  $\sqrt{}$ High levels of rejections would mean the inspection process is rigorous /doing its job.  $\sqrt{}$ 

#### Disadvantages of Rejecting finished goods

Rejected finished goods means resources have been wasted.  $\sqrt{}$  These would be materials  $\sqrt{}$  and/or labour.  $\sqrt{}$  It also means capital/finance is wasted.  $\sqrt{}$ 

The company should investigate the possible cause of this rejection  $\sqrt{\text{e.g. poor quality of materials, or unskilled or untrained labour, faulty machinery etc <math>\sqrt{}$  (need one possibility for maximum of one tick)

Maximum of 4 marks for arguing only one side of argument.

#### Conclusion – 2 marks

Andromeda plc should be concerned about the rejection of finished goods as resources are wasted  $\sqrt{\sqrt{}}$ 

(8)

Total for Question 6 = 32 marks

	[						1
7							
<u>(a)</u>			Times	number	kilos	Total kilos	
Steel for production	<u>(12 x 60)√</u>	=	16 √ x	(6 X	50) √	4 800 √	(4)
	45						
<u>(b)</u>							
Optimum Production	Beams	Fence posts	Brackets	Lintels			
Selling price per unit	£45	£28	£21	£15			
Variable cost per unit	£18	£10	£9	£7			
Contribution	£27√	£18√	£12√	£8√			
Materials per unit	12	10	6	8			
Contribution/Material unit	2.25√	1.8√	£2√	£1.00√			
Order	1	3√	2	4√			
Production							
	Steel	Output					
Beams	3 180						
Brackets	720	120					
Fence posts	900						
Lintels	0	0					
Total maximum output	4 800				(15)		
(c)Profit							
·	Contbtn	Sales	Total		1		
Beams	27	265	7 155				
Brackets	12		1 440		1		
Fence posts	18	90	1 620				
			10 215				
Less Fixed Costs			6 845				
Profit			3 370		(5)		

### 7(d)

#### Case For not producing all of the product range

Profits can be maximised,  $\sqrt{}$  by ranking in order the products with the highest contribution per unit of limiting factor first.  $\sqrt{}$  Profits built up when demand is high,  $\sqrt{}$  can help cushion the company when demand and profits are low  $\sqrt{}$  It will be possible to build up inventory when demand is low  $\sqrt{}$  as the product is not perishable.  $\sqrt{}$ 

#### Case Against not producing all of the product range

Customers may be annoyed that there is a waiting time for the order.  $\sqrt{}$  This is especially applicable for small building/repair jobs  $\sqrt{}$  which have not planned a schedule in advance.  $\sqrt{}$  Work may have to stop on the job, whilst supplies are awaited.  $\sqrt{}$  The customer may decide to look elsewhere for supplies.  $\sqrt{}$  They may not return to Acorn.  $\sqrt{}$  The customer may be looking to buy similar products/ products in the same product range.  $\sqrt{}$ 

Maximum of 4 marks for arguing one side.

#### Conclusion – 2 marks

Not producing all of the product range may/may not be a good idea.

(8)

Total for Question 7 = 32 marks

Pearson Education Limited. Registered company number 872828 with its registered office at 80 Strand, London WC2R ORL