

Candidate 2 – Question 1, Part A

$$(a) (i) \text{ SP} = \frac{\text{VC}}{\text{Units}} \times \frac{\text{FC}}{\text{Units}}$$

$$\text{SP} = \frac{20000}{1000} = 20$$

$$\text{SP} = 20$$

$$(ii) \text{ VC per unit} = \frac{\text{SP} \times \text{VC}}{\text{VC} \times \text{SP}}$$

$$\text{VC} = 8$$

$$(i) \text{ CPU} = \frac{\text{FC}}{\text{SP}} \times 100$$

$$=$$

$$\text{CPU} = \text{SP} - \text{VC}$$

$$\text{CPU} = 20 - 8$$

$$\text{CPU} = 12$$

$$(ii) \text{ FC} = \frac{\text{FC}}{\text{SP}} \times \text{SP}$$

$$\text{FC} = \frac{\text{CPU}}{\text{SP}} \times \text{SP}$$

$$\text{FC} = 24000$$

$$N) \text{ Break Even} = \frac{\text{FCU}}{F} \left(\frac{\text{FC}}{\text{CPU}} \right)$$

$$= \frac{12,000}{12}$$

$$= \underline{1000} \text{ units}$$

$$P) \text{ Margin of Safety} =$$

$$\frac{8000}{\cancel{\text{FC}}} = \frac{12,000}{12 \text{ units}}$$

$$\text{Units} = \frac{8000}{12}$$

$$\text{units} = \text{CPU} \times U$$

$$\text{margin} = 8000 \times 12$$

$$= 96000$$

$$Q) C) = (10000 \times 12) - 12000$$

$$= \underline{108000}$$

$$(d) \quad 90000 = (\text{units} \times \text{CPU}) - FC$$

+1200

$$90,000 = (\text{unit} \times 12) - 12000$$

$$\frac{102000}{12} = \text{units}$$

$$\underline{\text{units} = 8500}$$

$$\text{break even} = \left(\frac{\text{CPU}}{\text{FC}} \right) \times \text{FC}$$

$$FC = 12000 \times 1.05 = 12600$$

$$= \left(\frac{12}{12600} \right) \times 12600$$

$$= \left(\frac{12600}{12} \right)$$

$$\underline{\underline{= 1050 \text{ units}}}$$

Candidate 1 – Question 2, Part A

Gross Profit Ratio

$$\frac{56,000}{250,000} \times 100 = 22.4\%$$

Profit for the Year Ratio

$$\frac{31,000}{250,000} \times 100 = 12.4\%$$

Current Ratio

$$\frac{47,000}{22,000} = 2.35$$

Return on Equity Employed

$$\frac{31,000}{180,000} = 17.22\%$$

Trade Receivables Collection Period (in days)

$$\frac{7,000}{180,000} \times 365 = 14.19$$

= 15 days

Expenses Ratio

$$\frac{25,000}{250,000} = 10\%$$

Purchases

$$244,400 - 22,500 + 26,000 = 248,400$$

Trade Payables Payment Period (in days)

$$\frac{15,000}{248,400} \times 365 = 22 \text{ days}$$

(C) PFY is higher as Spinelli may have higher expenses
 Current ratio is higher due to more current assets
 Return on Equity is lower as they have higher expenses
 Collection period higher as Bettrillo wants to keep
 customers and give them time to pay.
 For Inventory turnover, Bettrillo holds less inventory.

Candidate 2 – Question 2, Part A

<p>Gross Profit Ratio</p> $\frac{\text{Gross profit}}{\text{Sales revenue}} \times 100 = \text{--- \%}$ $\frac{56,000}{250,000} \times 100 = 22.40\%$	$\frac{250,000}{250,000} = 100\%$ $\frac{250,000}{250,000} = 100\%$ $\frac{250,000}{250,000} = 100\%$
<p>Profit for the Year Ratio</p> $\frac{\text{Profit for year}}{\text{Sales revenue}} \times 100 = \text{--- \%}$ $\frac{31,000}{250,000} \times 100 = 12.40\%$	
<p>Current Ratio</p> <p>Current Asset : Current liabilities</p> <p>47,000 : 20,000</p> <p>2.35 : 1</p>	
<p>Return on Equity Employed</p> $\frac{\text{Profit for year}}{\text{Opening equity}} \times 100 = \text{--- \%}$ $\frac{31,000}{180,000} \times 100 = 17.22\%$	2dp
<p>Trade Receivables Collection Period (in days)</p> $\frac{\text{Av Trade receivables}}{\text{Credit purchases}} \times 365 = \text{--- days}$ $\frac{7,000}{(250,000 - 50,000)} \times 365 = 13.17 \text{ days}$	2dp

Rate of Inventory Turnover

$$\frac{\text{Cost of Sales}}{\text{AV Inventory}} = \text{--- times}$$

$$\frac{(250,000 - 56,000)}{24,250} = \frac{(225,000 + 26,000)}{2}$$

$$= \frac{194,000}{24,250} = 8 \text{ times}$$

Expenses Ratio

$$\frac{\text{Expenses}}{\text{Sales revenue}} \times 100 = \text{--- \%}$$

$$\frac{(36,000 - 31,000)}{250,000} \times 100$$

$$\frac{25,000}{250,000} = 0.1 \%$$

Purchases

30,000

Trade Payables Payment Period (in days)

$$\frac{\text{AV Trade Payables}}{\text{Credit purchases}} \times 100 = \text{--- days}$$

$$\frac{15,000}{30,000} \times 100 = 50 \text{ days}$$

Question 2 PART A (continued)

c) Profit for year ratio was higher % is because
More profit at end of year

Current ratio was lower due to Current assets being
less

Return on equity employed was higher maybe
More profit at end of year

Trade receivables collection period was more than
credit purchases was more

rate of inventory turn over was more than average
inventory was less

d) advantage of selling on credit basis is
don't have to deal with money in and out
of disadvantage may need to wait 30 days
or more to come in

Candidate 1 - Question 3

For use with question 3

Statement of Financial Position as at 31 December Year 4

	£	£	£
<u>Non Current Assets</u>			
			40,000
Property	17,000	7,000	10,000
Furniture + Fittings			<u> </u>
			50,000
<u>Current Assets</u>			
Closing Balance		22,000	
Trade Receivables		3,500	
Provision for Bad Debts		500	
Advertising		2,900	
		<u>27,900</u>	
<u>Current Liabilities</u>			
Trade Payables	2,300		
Overdraft	1,000		
General Expenses	<u>300</u>		
		<u>3,500</u>	
Working Equity			<u>24,400</u>
			<u>74,400</u>
<u>Financed By:</u>			
Equity			70,000
+ P.F.Y.			8,400
less Drawings			(8,000)
Bad Debts			<u>600</u>
Balancing			71,500

Candidate 2 - Question 3

Statement of Financial Position for Year 6

	£ 601	£ 2018	£ 00
<u>Non-Current Assets</u>			
Furniture + Fixtures	17,000	7000	10,000
Bad Debts	600	500	100
Property			40,000
			50,100
<u>Current Assets</u>			
Closing Inventory		22,000	
Trade Receivables		3500	
Cash + Cash Equivalents		1000	
General Expenses		1700	
Advertising		2900	
		31100	
<u>Current Liabilities</u>			
Trade Payables	2300	2300	
		23800	
<u>Add: Other income</u>			
Discount received		700	
			29500
			£79,600
<u>Financed by:</u>			
Equity			70,000
Add: Profit of the year			9900
			79900
Less: Drawings			8000
Equity at start Equity at end			£71,900

Candidate 1 - Question 4

$$(a) X: 8000 \text{ units} \times 4 \text{ hrs} = 32000 \text{ lab hrs}$$

$$Y: 8000 \text{ units} \times 6 \text{ hrs} = 48000 \text{ lab hrs}$$

$$\text{Total labour hours} = 48000 \text{ hrs} + 32000 \text{ hrs} \\ = \underline{80000 \text{ labour hours}}$$

(b) ~~£40 ÷ 4 hrs~~

$$X: £40 \div 4 \text{ hrs} = \underline{\underline{£10.00}}$$

$$Y: £54 \div 6 \text{ hrs} = \underline{\underline{£9.00}}$$

(c) 80000 labour hours \times 1.15

$$= \underline{\underline{92000 \text{ labour hours}}}$$

(d) Product X this is because the contribution is higher than product Y.

(e) ~~80000~~ \times ~~92000~~

$$92000 \div £40$$

$$= \underline{\underline{2300 \text{ units}}}$$

(Q) i) Fixed costs never change - they always stay the same.

(ii) Indirect costs cannot directly have variation in output.

(f) Profit Statement:

	920000
X: 92000 x 10	9200000
Y: 92000 x 9	828000
	£1748000
- fixed costs.	£386,000
	£1368000
	profit.

Candidate 2 - Question 4

a) total labour hours Year 1

$$x - \frac{8000}{4} = 2000 \quad y - \frac{8000}{6} = 1333.333$$

$$= 1333 \text{ (Whole Unit)}$$

b) $x - \frac{40}{4} = 10$ $y - \frac{54}{6} = 9$

Year 2: 2000
 $+ 1333$
 $\underline{\quad}$
 3333

$3333 = 100\%$
 $\div 1000 \quad \div 1000 \quad \div 100$
 $33.33 = 1\%$
 $\times 15 \quad \times 15$
 3832.45

c) 3833
 $- \underline{3333}$
 500 extra hours

3833 nearest hour

d) he should produce more of product X as the Contribution per labour hour is higher than Y

e) $\frac{500}{4} = 125 \text{ units}$

$$\begin{array}{r}
 x \\
 f) \quad 8000 + 125 \\
 = 8125
 \end{array}
 \qquad
 \begin{array}{r}
 y \\
 = 8000
 \end{array}$$

$$\begin{array}{r}
 8125 \times 40 \\
 325000 \\
 + \\
 8000 \times 54 \\
 432000 \\
 \hline
 = 757000
 \end{array}$$

g) i) a fixed cost is a cost that doesn't vary with level of output eg raw materials

ii) indirect cost is a cost in a business that can't be directly allocated to a department eg rent