

START

- 1 Define the terms:
- a) Contribution per unit
 - b) Break-even point
 - c) Margin of safety

- 2 State the formula for calculating:
- a) Contribution per unit
 - b) The break-even point
 - c) The margin of safety

- 3 Using the data drop, **calculate** the break-even point assuming the forecasts made are correct.

- 4 Based on your answer to Q3, **calculate** the:
- a) Expected margin of safety if 4,000 treatments are sold.
 - b) Forecasted profit if 4,000 treatments are sold.

- 14 Explain two reasons why cash flow forecasting is important for a new business.

- 13 Break-even analysis is a forecasting tool used by business. Another forecasting tool is cash flow forecasting. **Explain** the term cash flow forecast.

- 12 Explain 3 limitations or assumptions of break-even analysis.

- 11 Holding high levels of inventories is often a key cause of cash flow problems. **Outline** the pros and cons of holding high levels of inventories.

BUSINESS PROFILE

A new business offering a wide range of specialist beauty treatments.

Data Drop	
Fixed costs for the year	£30,000
Variable Cost per treatment	£10
Forecasted sales for the year	4000 treatments
Forecasted sales revenue for the year	£80,000



- 10 A business with persistent cash flow problems needs to better manage its cash flow. **Outline** the dangers of poor cash flow management.

- 9 If the opening balance was (£4,000) and the closing balance is £2,000, **calculate** the net cash flow. Has the businesses cash flow position improved ? Why ?

- 5 State the impact on the BEP and the MOS if:
- a) FC ↑
 - b) VC per unit ↓
 - c) Selling price per unit ↓
 - c) Expected sales ↑

- 6 Outline what would happen to the BEP in Q3 if FC ↑ by 10% and selling price per treatment ↑ to £25.

- 7 Based on your answer to Q3 and the data drop, **Calculate** the expected profit or loss if only 3,500 treatments are sold.

- 8 Describe the impact on the:
- a) TC line if FC ↑
 - b) TR line if price ↓
 - c) TC line if VC per unit ↑

BUSINESS FINANCE SUGGESTED ANSWERS

- 1 a)** Money left over from the SP after VC per unit has been deducted, which goes towards FC and profit.
- b)** The point at which a business is not making a profit or loss: $TR = TC$.
- c)** The number of units sold over and above the BEP.

- 2 a)** selling price per unit – VC per unit.
- b)** $FC / \text{contribution per unit}$.
- c)** Expected sales (treatments) – break even point.

3 Selling price per treatment = $\frac{£80,000}{4,000 \text{ treatments}} = £20 \text{ per unit}$

$\frac{£30,000}{£20 - £10} = \frac{£30,000}{£10} = 3,000 \text{ treatments}$

- 4 a)** 4,000 treatments – 3,000 treatments = 1,000 treatments
- b)** 2 ways to calculate:
- (i) $\text{Contribution} - FC = (£10 \times 4,000) - £30,000 = £10,000$
- (ii) $MOS \times \text{contribution per treatment} = 1,000 \text{ treatments} \times £10 = £10,000$

- 14** It helps them identify expected shortfalls, allowing them to arrange short term finance or take action to avoid the shortfall.
- It helps them identify expected surpluses, allowing them to arrange for it to be invested, or saved to fund them through a period of low cash inflows, e.g. a seasonal business.

- 13** A cash flow forecast is an estimation of how cash will flow into and out of a business over a period of time.

- 12** Assumes all treatments offered are sold.
- Assumes price remains constant.
- Assumes FC remains fixed over all levels of output.
- Assumes VC per unit remains constant.

- 11** Pros – customers have greater choice, business less likely to run out if suppliers deliver late or less than expected, can meet unexpected surge in demand.
- Cons – ties up cash, may become out of date (perishable, obsolete, out of fashion), space and cost to store, maintain and insure.

TIME TO REVIEW YOUR LEARNING.....

List three content points that you are confident with and three that require some attention.

Confident with	Requires attention
1	1
2	2
3	3

- 10** Have to borrow to fund shortfall resulting in interest charges, harder to get loans in future as credit rating falls, insolvency, bankruptcy.

- 9** $(£4,000) + £6,000 = £2,000$, therefore NCF = £6,000. Yes, has improved as started with deficit of (£4,000) and ended with a surplus of £2,000.

- 5 a)** $FC \uparrow - BEP \uparrow, MOS \downarrow$
- b)** $VC \text{ per unit } \downarrow - BEP \downarrow MOS \uparrow$
- c)** $\text{Selling price per unit } \downarrow - BEP \downarrow MOS \uparrow$
- d)** $\text{Expected sales } \uparrow - BEP \text{ no change, } MOS \downarrow$

- 6** 10% increase $FC = £3,000$
New $FC = £33,000$
 $£25 - £10 = £15 \text{ contribution}$
 $\frac{£33,000}{£15} = 2,200 \text{ treatments}$
BEP has fallen by 800 treatments

- 7** $\text{Contribution} - FC = (£10 \times 3,500) - £30,000 = £5,000$
 $MOS \times \text{contribution per unit} = 500 \text{ treatments} \times £10 = £5,000$

- 8 a)** TC line if $FC \uparrow$ - shift upwards parallel to original TC line.
- b)** TR line if price \downarrow - flatter regularly.
- c)** TC line if $VC \text{ per unit } \uparrow$ - steeper.