
Answers

Section A

- 1 B
- 2 A
- 3 C $(29,764 - 28,420) \div (12,880 - 11,600)$
- 4 C
- 5 A
- 6 A $(620 \times 0.50) + (100 \times 0.05) + (20 \times 0.10)$
- 7 B
- 8 B
- 9 D
- 10 B $(2,180 \times 12.00) - 25,470$
- 11 D $(24,030 \div 1,800)$
- 12 B $(3,633 \div 0.7)$
- 13 C
- 14 B $(12,800 \div 4,000) + (18,430 \div 3,880)$
- 15 B
- 16 C $102,000 \times (88,000 \div 160,000)$
- 17 B $(4,558 \div 2,120)$
- 18 D
- 19 B
- 20 C $90 - (27.3 + 24.8 + 22.5 \text{ Yrs 1 to 3}) = 15.4$ which is < 20.5 Yr 4

Section B

1 (a) Profit statement – absorption costing:

	£	£	
Sales		547,200	(45,600 litres at £12.00/litre)
Production costs:			
Prime costs	239,200		(46,000 litres at £5.20/litre)
Production overhead	128,800		(46,000 litres at £2.80/litre)
	<u>368,000</u>		(46,000 litres at £8.00/litre)
Cost of production			(400 litres at £8.00/litre)
less Closing stock	3,200		
	<u>364,800</u>		
Production cost of sales		364,800	(45,600 litres at £8.00/litre)
Gross profit		182,400	(45,600 litres at £4.00/litre)
Non-production overheads:			
Variable	29,640		(45,600 litres at £0.65/litre)
Fixed	78,200		(46,000 litres at £1.70/litre)
		<u>107,840</u>	
Net profit		<u>74,560</u>	

- (b)** The profits differ because in this example the company has closing stock which is valued differently under the two costing methods.

The profit is higher using absorption costing because some of the fixed production overheads incurred in the period, which are all charged as a period cost using marginal costing, are carried forward to the following period within the closing stock valuation.

Thus the profits differ by £1,120 (400 units of closing stock at £2.80 per unit fixed production overheads).

2 (a) Output:

Input	600 tonnes
Normal loss	<u>72 tonnes (600 tonnes x 0.12)</u>
Normal output	528 tonnes (600 tonnes x 0.88)
Actual output	<u>521 tonnes</u>
Abnormal loss	<u>7 tonnes</u>

Costs:	£	
Materials	430,032	
Conversion	119,328	
Sales value of normal loss	(18,720)	(72 tonnes at £260/tonne)
Total net cost	<u>£530,640</u>	

Cost per tonne = £1,005 (£530,640 ÷ 528 tonnes)

(b) Process Account:

	tonnes	£		tonnes	£
Materials	600	430,032	Finished goods	521	523,605
Conversion costs		119,328	Normal loss	72	18,720
			Abnormal loss	7	7,035
	<u>600</u>	<u>549,360</u>		<u>600</u>	<u>549,360</u>

Workings:

Finished goods	521 tonnes at £1,005/tonne = £523,605
Abnormal loss	7 tonnes at £1,005/tonne = £7,035

- 3 (a)** Holding costs: cost of storage space, storage equipment, interest charges, stock obsolescence, stock deterioration, insurance (NB any three required).

- (b)** Stockout costs: lost contribution from lost sales, production inefficiency due to stoppages/replanning, extra cost of urgent buying, loss of customer goodwill (NB any two required).

(c) Economic order quantity (EOQ):

$$\sqrt{[(2 \times 60 \times 20,000) \div (2.50 \times 0.15)]}$$

$$= \underline{2,530 \text{ kg}}$$

(d) Holding costs:

$$\text{Average stock } \frac{(3,000 + 1,000)}{2} \times (2.50 \times 0.15)$$

$$= 2,500 \text{ kg} \times \text{£}0.375/\text{kg}$$

$$= \underline{\text{£}937.50}$$

4 (a) Workings:

	£/unit	
Selling price to bookshops	12.00	(£15.00 x 0.8)
Variable costs	5.00	[£3.20 + (£12.00 x 0.15)]
Contribution	<u>7.00</u>	

Fixed costs £105,000 (£25,000 + £80,000)

(i) Break-even:

$$\text{£}105,000 \text{ (fixed costs)} \div \text{£}7.00 \text{ (contribution per unit)}$$

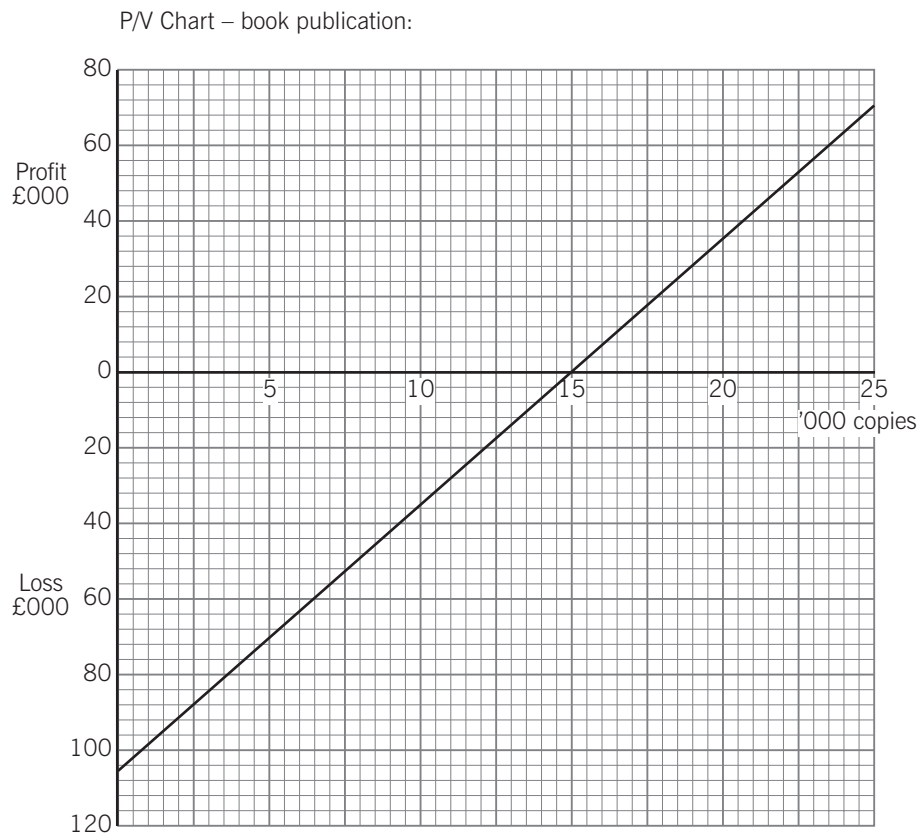
$$= \underline{15,000 \text{ copies}}$$

(ii) Required sales:

$$\text{£}140,000 \text{ (fixed costs + required profit)} \div \text{£}7.00 \text{ (contribution per unit)}$$

$$= \underline{20,000 \text{ copies}}$$

(b) P/V chart:



		Marks	Marks 40
Section A 2 marks per question			
Section B			
1	(a) sales	1	
	production cost of sales	3	
	gross profit (term & figure)	1	
	non-production overheads – variable	1½	
	– fixed	1½	
		<u>8</u>	8
	(b) stock valuation	2	
	fixed production overhead	2	
	reconciliation	2	
		<u>6</u>	6
			<u>14</u>
2	(a) normal output	2	
	abnormal loss	1½	
	costs	1	
	value of normal loss	2	
	cost per tonne	1½	
		<u>8</u>	8
	(b) debits	1½	
	finished goods	1½	
	normal loss	1½	
	abnormal loss	1½	
		<u>6</u>	6
			<u>14</u>
3	(a) 1 mark for each		3
	(b) 1 mark for each		2
	(c) formula	1	
	holding costs per kg	1	
	solution	3	
		<u>5</u>	5
	(d) average stock	3	
	holding costs per kg	1	
	solution	1	
		<u>5</u>	5
			<u>15</u>
4	(a) selling price	1½	
	variable costs	2½	
	contribution	1	
	fixed costs	1½	
	breakeven	2½	
		<u>9</u>	9
	(b) required sales		3
	(c) format & labelling	2	
	plotting & line	3	
		<u>5</u>	5
			<u>17</u>