Topic 5: Cost Accounting

Activity 1 1. Е 2. J А 3. 4. Н G 5. 6. В 7. I С 8. 9. F 10. D

Activity 2

| Direct materials costs | R |
|--------------------------------|--|
| Wax used | 310 000 |
| Candle pits used | 30 000 |
| Colourants to colour wax | 1 200 |
| | 341 200 |
| Direct labour costs | R |
| Wages (candle makers) | 90 000 |
| Prime costs | R |
| Direct materials costs | 341 200 |
| Direct labour costs | 90 000 |
| | 431 200 |
| Factory overhead costs | R |
| Wages (factory cleaners) | 28 000 |
| Salary (factory supervisor) | 21 000 |
| Rent: Factory | 12 000 |
| Consumables: Factory | 1 300 |
| Water and electricity: Factory | 2 900 |
| | 65 200 |
| Total manufacturing costs | R |
| Prime costs | 431 200 |
| Factory overhead costs | 65 200 |
| | 496 400 |
| Unit cost per candle | |
| | Direct materials costs Wax used Candle pits used Colourants to colour wax Direct labour costs Wages (candle makers) Prime costs Direct materials costs Direct labour costs Direct labour costs Direct labour costs Factory overhead costs Wages (factory cleaners) Salary (factory supervisor) Rent: Factory Consumables: Factory Water and electricity: Factory Water and electricity: Factory Total manufacturing costs Prime costs Factory overhead costs Unit cost per candle |

496 400 ÷ 1 200 000 = R0,41

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Activity 3

| Prime costs Direct labour costs: | | | |
|--|---|---|--|
| Seamstress's wages Pattern cutter's wages | R1 900 <u>R1 200</u> R3 100 | | |
| Direct materials costs: | B30 × 3 000 | R (| |
| Zips | $R3 \times 3\ 000$ | R | 9 000 |
| Inner filling | R5 × 3 000 | R 1 | 15 000 |
| I rim cord $(1,1 \times R2)$ I | ≺2,20 × 3 000 | <u>R</u> R 12 | <u>6 600</u> 20 600 |
| | Prime costs Direct labour costs: Seamstress's wages Pattern cutter's wages Direct materials costs: Material $(1,5 \times R20)$ Zips Inner filling Trim cord $(1,1 \times R2)$ | Prime costsDirect labour costs:Seamstress's wagesR1 900Pattern cutter's wagesR1 200R3 100Direct materials costs:Material $(1,5 \times R20)$ R30 \times 3 000ZipsR3 \times 3 000Inner fillingR5 \times 3 000Trim cord $(1,1 \times R2)$ R2,20 \times 3 000 | Prime costsDirect labour costs:Seamstress's wagesR1 900Pattern cutter's wagesR1 200R3 100R3 100Direct materials costs:R3 100Direct materials costs:R3 × 3 000Material (1,5 × R20)R30 × 3 000ZipsR3 × 3 000Inner fillingR5 × 3 000Trim cord (1,1 × R2)R2,20 × 3 000RRRR |

Prime costs: R120 600 + R3 100 = R123 700

2. Total manufacturing costs

| Factory overhead costs: | |
|-------------------------|--------------|
| Cleaning lady's wages | R1 000 |
| Salary of supervisor | R1 500 |
| Factory rent | R2 200 |
| Water and electricity | <u>R 800</u> |
| | R5 500 |

Total manufacturing costs = R123 700 + R5 500 = R129 200

3. Unit price per manufactured unit R129 200 \div 3 000 = R43,07

4. Selling price per unit (150 ÷ 100) × R43,07 = R64,61

Activity 4

- 1. **Contribution per unit:** R3 800 R3 000 = R800
- 2. Break-even point: R880 000 ÷ R800 = 1 100 units
- Yes, the business made a profit of R1 368 000.
 1 460 − 1 100 = 360
 360 × R3 800 = R1 368 000

Activity 5

- 1. **Total fixed costs:** R128 600 + R34 200 = R162 800
- 2. Total variable costs: R340 000 + R232 000 + R46 800 = R618 800
- 3. Variable costs per unit: R618 800 ÷ 2 400 = R257,83
- 4. Selling price per unit: R1 200 000 ÷ 2 400 = R500
- 5. **Contribution per unit:** R500 R257,83 = R242,17
- 6. Break-even point: R162 800 ÷ R242,17 = 673 units
- 7. Yes, the business made a profit of R863 500. 2 400 - 673 = 1 727 1 727 \times R500 = R863 500

Activity 6

| General Ledger of Delta Manufacturers | | | | | | | | | |
|---------------------------------------|----|---------------------------|-----|-----------|--------------|-----|---------------------------|-----|---------|
| Dr. | | | D | IRECT MAT | ERIALS | STO | CK | | Cr. |
| 2018 Mar. | 1 | Balance | b/d | 25 800 | 2019 Feb. | 28 | Work-in-progress stock | GJ | 257365 |
| 2019 Feb. | 28 | Creditors Control | CJ | 244 000 | | | Balance | c/d | 33 035 |
| | | Bank | CPJ | 16 000 | | | | | |
| | | Carriage on purchases | GJ | 4 600 | | | | | |
| | | | | 290 400 | | | | | 290 400 |
| 2019 Mar. | 1 | Balance | b/d | 33 035 | | | | | |
| WORK-IN-PROGRESS STOCK | | | | | | | | | |
| 2018 Mar. | 1 | Balance | b/d | 42 300 | 2019 Feb. | 28 | Finished goods stock | GJ | 700 000 |
| 2019 Feb. | 28 | Direct materials stock | GJ | 257 365 | | | Balance | c/d | 46 400 |
| | | Direct labour costs | GJ | 180 900 | | | | | |
| | | Factory overhead costs | GJ | 265 835 | | | | | |
| | | | | 746 400 | | | | | 746 400 |
| 2019 Mar. | 1 | Balance | b/d | 46 400 | | | | | |
| | | | FII | NISHED GO | ODS ST | оск | | | |
| 2018 Mar. | 1 | Balance | b/d | 65 000 | 2019 Feb. | 28 | Cost of sales | GJ | 632 000 |
| 2019 Feb. | 28 | Work-in-progress stock | GJ | 700 000 | | | Balance | c/d | 133 000 |
| | | | | 765 000 | | | | | 765 000 |
| 2019 Mar. | 1 | Balance | b/d | 133 000 | | | | | |

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| Dr. | | FACTORY OVERHEAD COSTS | | | | | | | | |
|--------------|----|---|----|---------|--------------|----|---------------------------|----|---------|--|
| 2019 Feb. | 28 | Indirect materials costs (800 + 10 600 + 400 – 900) | GJ | 10 900 | 2019 Feb. | 28 | Work-in-progress stock | GJ | 265 835 | |
| | | Indirect labour costs | GJ | 32 160 | | | | | | |
| | | Salaries | GJ | 125 000 | | | | | | |
| | | Rent | GJ | 38 775 | | | | | | |
| | | Insurance | GJ | 9 000 | | | | | | |
| | | Water and electricity | GJ | 8 000 | | | | | | |
| | | Depreciation | GJ | 42 000 | | | | | | |
| | | | | 265 835 | | | | | 265 835 | |

Calculations:

Rent: $4x + 7(x + 275) = 47\ 300$ $4x + 7x + 1\ 925) = 47\ 300$ $11x = 45\ 375$ $x = 4\ 125$ $4\ 125 + 275 = R4\ 400$ R47 300 + R4 400 = R51 700 R51 700 $\times \frac{1\ 500}{2\ 000} = R38\ 775$ Insurance: $\frac{1\ 500}{2\ 000} \times 12\ 000 = R9\ 000$ Water and electricity: $\frac{80}{100} \times 10\ 000 = R8\ 000$

Activity 7

| 4 | |
|---|--|
| 1 | |
| | |

General Ledger of Henning Manufacturers

| Dr. | DIRECT MATERIALS STOCK | | | | | | | | |
|--------------|------------------------|-----------------------|-----|---------|--------------|----|---------------------------|-----|---------|
| 2016 Mar. | 1 | Balance | b/d | 32 000 | 2017 Feb. | 28 | Work-in-progress stock | GJ | 280 000 |
| 2017 Feb. | 28 | Creditors Control | CJ | 295 000 | | | Balance | c/d | 51 825 |
| | | Bank (4 500 + 325) | CPJ | 4 825 | | | | | |
| | | | | 331 825 | | | | | 331 825 |
| 2017 Mar. | 1 | Balance | b/d | 51 825 | | | | | |

| Dr. | WORK-IN-PROGRESS STOCK | | | | | | | | Cr. |
|----------------------|------------------------|--|-----|-----------|--------------|------|---------------------------|------|---------|
| 2016 Mar. | 1 | Balance | b/d | 22 000 | 2017 Feb. | 28 | Finished goods stock | GJ | 690 000 |
| 2017 Feb. | 28 | Direct labour costs (102 000 + 2 900 + 100) | GJ | 105 000 | | | Balance | c/d | 17 000 |
| | | Direct materials stock | GJ | 280 000 | | | | | |
| | | Factory overhead costs | GJ | 300 000 | | | | | |
| | | | | 707 000 | | | | | 707 000 |
| 2017 Mar. | 1 | Balance | b/d | 17 000 | | | | | |
| FINISHED GOODS STOCK | | | | | | | | | |
| 2016 Mar. | 1 | Balance | b/d | 24 000 | 2017 Feb. | 28 | Cost of sales | GJ | 685 500 |
| 2017 Feb. | 28 | Work-in-progress stock | GJ | 690 000 | | | Balance | c/d | 28 500 |
| | | | | 714 000 | | | | | 714 000 |
| 2017 Mar. | 1 | Balance | b/d | 28 500 | | | | | |
| Dr. | | | FA | ACTORY OV | ERHEA | D CO | STS | | Cr. |
| 2017 Feb. | 28 | Indirect materials stock (1 200 + 8 600 – 1 400) | GJ | 8 400 | 2017 Feb. | 28 | Work-in-progress stock | GJ | 300 000 |
| | | Depreciation (36 000 + 2 500) | GJ | 38 500 | | | | | |
| | | Salaries | GJ | 130 000 | | | | | |
| | | Insurance | GJ | 6 950 | | | | | |
| | | Water and electricity | GJ | 27 710 | | | | | |
| | | Sundry expenses | GJ | /6 000 | | | | | |
| | | | GJ | 300 000 | | | | ┤──┤ | 300.000 |
| | | 1 | | 300 000 | | | 1 | | 300 000 |

2.1 **Direct labour cost per unit:** 105 000 ÷ 210 000 = 50 cents

2.2 Selling costs: R50 000 + R1 630 = R51 630

Variable costs = Direct materials costs + Direct labour costs + Selling costs = R280 000 + R105 000 + R51 630 = R436 630

2.3 Admin costs = R2 400 + R80 000 + R3 260 + R32 500 - R600 = R117 560

> **Fixed costs** = Factory overhead costs + Admin costs = R300 000 + R117 560 = R417 560

2.4 **Variable costs per unit** = R436 630 ÷ R210 000 = R2,08 per unit

> Marginal income per unit = R5,00 - R2,08 = R2,92

Break-even-point in units = R417 560 ÷ R2,92 = 143 000 units

Activity 8

- 1. The quality of the meat sold to customers were questioned.
- 2. Meat was labelled or advertised as beef, but DNA tests showed that the meat products also contained horse or donkey meat.
- 3. Manufacturing business should keep the following in mind:
 - Manufacturers and service providers must commit to a sustainable, safe and healthy consumer goods industry.
 - Putting customers first builds trust. The right of access to comprehensive, visible and reliable information about contents, ingredients and quantities must be a priority, so that customers may know what they are buying.
 - Although healthy competition between retailers pushes down prices, retailers and suppliers need to find a way to put their own interests aside where possible to promote food security.
 - A transparent labelling policy enables consumers to make responsible choices and promotes the principle that "if it isn't on the label, it isn't in the product".
- 4 Manufacturers should ensure stringent checks and controls in the manufacturing process. They should give preference to local suppliers, so that they can monitor their food safety management system, which governs the methods of manufacturing and traceability.