# Answers

**Section A**

1   C

2   D

3   B

4   D

5   D   $4{,}000 \div 0{\cdot}9 = 4{,}444$

6   C

7   D

8   A

9   B   $73{,}220 - 71{,}890 = 1{,}330$ (under-absorbed because absorbed < actual)

10  C

11  A

12  C

13  A   $(12{,}000 \times 0{\cdot}9) - 10{,}920 = 120$ (gain because actual > expected)

14  C

15  B   $780 \times 0{\cdot}6 = 468$

16  B   $1{,}400 \times 14{\cdot}32 = 20{,}048$

17  D

18  D   $350{,}000 \div 0{\cdot}41 = 854{,}000$

19  C   $[(1{\cdot}021)^4 - 1] \times 100 = 8{\cdot}67\%$

20  B   $100{,}000 \div 30{,}000 = 3{\cdot}3$ years

**Section B**

**1** **(a)** Compound interest:

    **(i)** Other constituents of the formula:

        P = original sum invested (principal)
        r = interest rate per period, expressed as a proportion (decimal)
        n = number of periods

    **(ii)** Future value:

        $5{,}000 \times (1 + 0\cdot08)^4$

        = £6,802

**(b)** Investment appraisal:

    **(i)** Net present value:

        Annual depreciation = £175,000 ÷ 5 = £35,000

        Incremental discounted cash inflows:

| Year | Cash inflow £000 | Discount factor at 10% | Present value £000 |
|------|------------------|------------------------|--------------------|
| 1 | 24 [(11) + 35] | 0·909 | 21·8 |
| 2 | 38 [3 + 35] | 0·826 | 31·4 |
| 3 | 69 [34 + 35] | 0·751 | 51·8 |
| 4 | 82 [47 + 35] | 0·683 | 56·0 |
| 5 | 43 [8 + 35] | 0·621 | 26·7 |
| | | | 187·7 |

        Net present value (NPV) = £12,700 (187,700 − 175,000)

    **(ii)** The investment is worthwhile because the NPV is positive when the incremental cash flows are discounted at the company's required rate of return.

**2** **(a)** Bases of overhead apportionment:

    **(i)** Factory rent – floor space occupied

    **(ii)** Staff canteen – number of staff

**(b)** Overhead absorption:

    **(i)** Production overhead absorption rates:

        Production cost centre X = £161,820 ÷ 8,700 machine hours

                = £18·60 per machine hour

        Production cost centre Y = £97,110 ÷ 8,300 direct labour hours

                = £11·70 per direct labour hour

    **(ii)** Production overhead absorbed:

        Production cost centre X = 8,960 machine hours at £18·60

                = £166,656

        Production cost centre Y = 7,870 direct labour hours at £11·70

                = £92,079

    **(iii)** Over/under absorption of production overhead:

        Production cost centre X = £163,190 − £166,656

                = £3,466 over absorbed

        Production cost centre Y = £96,330 − £92,079

                = £4,251 under absorbed

**3** **(a)** Features of useful information:

  – Relevant – information must be appropriate for the purpose for which it is to be used

  – Complete – an information user should have all the information he/she needs to do the job effectively

  – Accurate – information should not be inaccurate but only needs to be accurate (detailed) enough for its purpose

  – Clear – information must be easily understood: it is important to choose the most appropriate presentation medium or channel of communication

  – Timely – information should be provided immediately in advance of when it is needed and only as frequently as is necessary

  – Cost/benefit – information should be provided at a cost which is less than the value of its benefits

  (any FOUR features)

**(b)** Cost behaviour:

  **(i)** Variable cost per unit:

   (£106,250 – £41,990) ÷ 8,400 units

   = £7·65 per unit

  **(ii)** Total cost for output of 8,660 units:

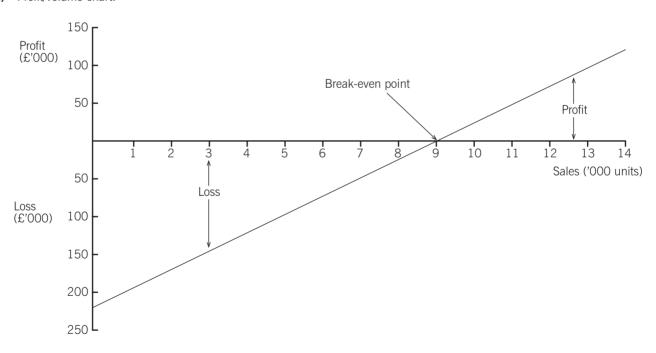   (8,660 units × £7·65 per unit) + £41,990

   = £108,239

  **(iii)** Cost per unit for output of 8,500 units:

   = £7·65 + (£41,990 ÷ 8,500 units)

   = £12·59 per unit

**4** **(a)** Profit/volume chart:



Workings:
Contribution per unit = £24·00 (60·00 – 36·00)
Loss at zero activity = £216,000 (fixed costs)
Profit on sales of 14,000 units = £120,000 [(14,000 × 24·00) – 216,000]
Break-even point can be confirmed as (216,000 ÷ 24·00) = 9,000 units

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**(b)** **(i)** Contribution/sales (C/S) ratios:

Product A [(10·00 − 5·20) ÷ 10·00] × 100% = <u>48%</u>

Product B [(12·50 − 7·50) ÷ 12·50] × 100% = <u>40%</u>

Product C [(18·70 − 9·35) ÷ 18·70] × 100% = <u>50%</u>

**(ii)** Limiting factor – machine hours:

|  | Product A | Product B | Product C |
|---|---|---|---|
| Contribution per unit | £4·80 | £5·00 | £9·35 |
| Machine hours per unit | 0·6 | 0·5 | 1·0 |
| Contribution per machine hour | £8·00 | £10·00 | £9·35 |
| Production priority | <u>3</u> | <u>1</u> | <u>2</u> |

Limiting factor – direct labour hours:

|  | Product A | Product B | Product C |
|---|---|---|---|
| Direct labour hours per unit | 1·0 | 1·2 | 2·5 |
| Contribution per direct labour hour | £4·80 | £4·17 | £3·74 |
| Production priority | <u>1</u> | <u>2</u> | <u>3</u> |

**ACCA Certified Accounting Technician Examination – Paper T4**
**Accounting for Costs**

|  |  | Marks | Marks |
|---|---|---|---|

**Section A**

1–20    2 marks per question                                                                                      40

**Section B**

| 1 | (a) | (i) | 1 mark for each | | 3 |
|---|---|---|---|---|---|
| | | (ii) | formula constituents | $1\frac{1}{2}$ | |
| | | | calculation | $1\frac{1}{2}$ | 3 |
| | (b) | (i) | depreciation | $1\frac{1}{2}$ | |
| | | | depreciation adjustment | $2\frac{1}{2}$ | |
| | | | discounting | $2\frac{1}{2}$ | |
| | | | net present value | $1\frac{1}{2}$ | 8 |
| | | (ii) | worthwhile | 1 | |
| | | | NPV positive at required rate of return | 1 | 2 |
| | | | | | 16 |

| 2 | (a) | 2 marks for each | | 4 |
|---|---|---|---|---|
| | (b) | (i) | $1\frac{1}{2}$ marks for each | | 3 |
| | | (ii) | $1\frac{1}{2}$ marks for each | | 3 |
| | | (iii) | 1 mark for each figure | 2 | |
| | | | 1 mark for 'over', 'under' | 2 | 4 |
| | | | | | 14 |

| 3 | (a) | $1\frac{1}{2}$ marks for each feature | | 6 |
|---|---|---|---|---|
| | (b) | (i) | variable cost per unit | | 2 |
| | | (ii) | variable cost | $1\frac{1}{2}$ | |
| | | | fixed cost | $\frac{1}{2}$ | 2 |
| | | (iii) | cost per unit | | 2 |
| | | | | | 12 |

| 4 | (a) | (i) | calculations | 2 | |
|---|---|---|---|---|---|
| | | | scaling & labelling | 1 | |
| | | | chart format | 1 | |
| | | | plotting & profit line | 4 | 8 |
| | | (ii) | break-even | 1 | |
| | | | profit & loss areas | 1 | 2 |
| | (b) | (i) | ratios | | 2 |
| | | (ii) | contribution per machine hour | 2 | |
| | | | priority | 1 | |
| | | | contribution per direct labour hour | 2 | |
| | | | priority | 1 | 6 |
| | | | | | 18 |