CIMA BA2 Management Accounting

Mock exam: 60 questions in 120 minutes, with an answer key and explanations

How to use this mock

- Set a timer for **120 minutes** and answer every question without notes. Write your answers in the grid on the next page.
- Mark your answers using the answer key, then read the explanation for every question you got wrong or guessed.
- The questions cover every section of the syllabus, in proportion to the GoQualified question bank for BA2.
- Prefer to sit it on screen? The **Exam Sim** on **goqualified.co.uk/cima/ba2/** times you, marks the paper and shows your weakest section.
- All questions are original GoQualified practice questions, not past exam questions.

Free from GoQualified. Questions start on page 3; the answer key and explanations follow them. Download the latest version from goqualified.co.uk/cima/ba2/.

Your answers

1 _____	13 _____	25 _____	37 _____	49 _____
2 _____	14 _____	26 _____	38 _____	50 _____
3 _____	15 _____	27 _____	39 _____	51 _____
4 _____	16 _____	28 _____	40 _____	52 _____
5 _____	17 _____	29 _____	41 _____	53 _____
6 _____	18 _____	30 _____	42 _____	54 _____
7 _____	19 _____	31 _____	43 _____	55 _____
8 _____	20 _____	32 _____	44 _____	56 _____
9 _____	21 _____	33 _____	45 _____	57 _____
10 _____	22 _____	34 _____	46 _____	58 _____
11 _____	23 _____	35 _____	47 _____	59 _____
12 _____	24 _____	36 _____	48 _____	60 _____

Questions

Question 1

A cost centre is best described as:

A A unit of product or service for which costs are ascertained
B The total cost of running the whole organisation
C A location, function or item for which costs are accumulated
D A measure of profit earned by a division

Question 2

Which of the following best reflects how the management accountant supports operational managers?

A By auditing managers' decisions after the year end
B By preparing the statutory accounts for shareholders
C By setting the managers' personal performance bonuses
D By providing timely, relevant analysis to inform planning and control

Question 3

The salary of a sales representative would be classified as which type of cost by function?

A A selling and distribution cost
B A production cost incurred in the factory
C An administration cost
D A finance cost specifically related to borrowing

Question 4

Comparing actual results with the budget after the event, and using the differences to inform future action, is an example of:

A Feedforward control
B Strategic planning
C Feedback control
D Cost apportionment

Question 5

A management accountant who keeps their technical knowledge up to date through continuing professional development is primarily demonstrating:

A Confidentiality of client information
B Independence from the client
C Professional competence and due care
D Objectivity in professional judgement

Question 6

A cost object is best described as:

A A specific type of cost variance calculated
B Always a single physical product
C The total overhead of a department
D Anything requiring a separate measurement of cost

Question 7

A company rents an additional warehouse unit each time its storage needs exceed the capacity of the units it already holds. Within each capacity band the total rental cost is constant. How is this cost best classified?

A Variable cost
B Semi-variable cost
C Stepped fixed cost
D Pure fixed cost

Question 8

A factory has two service departments, Stores and Maintenance, whose primary allocated overheads are £18,000 and £9,000 respectively. Stores services are used as follows: Maintenance 20%, production departments 80%. Maintenance services are used as follows: Stores 50%, production departments 50%. Using the simultaneous equations (reciprocal) method, what is the total cost of the Maintenance department after taking account of the reciprocal services between the two departments?

A £14,000
B £12,600
C £9,000
D £18,000

Question 9

In a period a company produced 10,000 units and sold 9,000 units. Fixed production overhead is absorbed at £6 per unit. Profit under marginal costing was £40,000. What is the profit for the same period under absorption costing?

A £34,000
B £40,000
C £6,000
D £46,000

Question 10

A product has a total cost of £90 per unit. The company wishes to achieve a gross profit margin of 25% of the selling price. What selling price should be set?

A £112.50
B £72.00
C £108.00
D £120.00

Question 11

Which of the following would be the most appropriate basis for apportioning factory rent and rates across production departments?

A Number of employees in each department
B Direct labour hours worked in each department
C Value of machinery in each department
D Floor area occupied by each department

Question 12

Using the high-low method, total cost is £60,000 at 5,000 units and £88,000 at 9,000 units, with cost behaviour linear throughout. What is the estimated fixed cost?

A £7.00 per unit
B £28,000
C £60,000
D £25,000

Question 13

A product costs £60 per unit. The company sets prices using a mark-up of 40% on cost. What is the selling price?

A £84
B £100
C £42
D £36

Question 14

A service department's overhead of £30,000 is reapportioned to two production departments, P1 and P2, in the ratio 60:40. How much overhead is charged to P2?

A £18,000
B £12,000
C £15,000
D £30,000

Question 15

A company wants every product to earn a gross profit margin of 20% of selling price. If a product costs £48, what selling price achieves this?

A £60.00
B £57.60
C £40.00
D £58.00

Question 16

Market research costing £5,000 has already been carried out for a proposed new product. In deciding whether to launch the product, this £5,000 is best described as:

A A relevant cost
B A sunk cost
C An opportunity cost
D A variable cost

Question 17

A product uses £12 of direct materials and £8 of direct labour per unit. Production overhead is absorbed at 150% of direct labour cost. What is the full production cost per unit?

A £30
B £20
C £32
D £44

Question 18

A company invests £500,000 in a product line and wants an annual return on investment of 20%. If it expects to sell 10,000 units a year at a total cost of £40 per unit, what selling price gives the required return?

A £48
B £50
C £60
D £44

Question 19

A supervisor is needed for every 20 workers, and one is added each time the workforce passes a multiple of 20. The supervisors' cost is best classified as:

A A purely variable cost
B A semi-variable cost
C A stepped fixed cost
D A direct cost of each unit

Question 20

Production was 12,000 units and sales were 10,000 units. Fixed overhead is absorbed at £3 per unit. If marginal costing profit is £50,000, what is the absorption costing profit?

A £44,000
B £56,000
C £50,000
D £6,000

Question 21

A machine used for a special order would otherwise be hired out. The opportunity cost of using it for the order is:

A The hire income forgone by not renting it out
B The original purchase cost of the machine
C The depreciation charged on the machine
D Zero, because the machine is already owned

Question 22

A company budgets to sell 50,000 units of a product next period. Opening finished goods inventory is 8,000 units and the company wishes to hold closing finished goods inventory of 6,000 units. How many units should be budgeted for production?

A 50,000 units
B 48,000 units
C 52,000 units
D 64,000 units

Question 23

In which of the following situations is job costing the most appropriate costing method?

A A factory producing identical units of a single product on a continuous basis
B An oil refinery producing fuel through continuous processing
C A printing firm producing customised orders to individual customer specifications
D A water utility supplying a homogeneous service to all customers

Question 24

Budgeted production requires 40,000 kg of material. Opening material inventory is 5,000 kg and the company wishes to hold closing inventory of 7,000 kg. How many kg should be budgeted for purchase?

A 38,000 kg
B 42,000 kg
C 40,000 kg
D 52,000 kg

Question 25

Which of the following best describes the master budget?

A A budget prepared for just one single department
B A budget that is updated continuously throughout the year
C The summary budget combining all functional budgets into one overall plan
D A budget showing only planned capital expenditure

Question 26

The standard labour rate is £10 per hour. During the period 6,000 hours were worked at a total cost of £63,000. What is the labour rate variance?

A £3,000 favourable
B £3,000 adverse
C £6,300 adverse
D £60,000 adverse

Question 27

In a marginal costing operating statement, the reconciliation runs from budgeted contribution to actual contribution by adjusting for:

A Fixed overhead volume variances specifically
B Depreciation and amortisation charges specifically
C Sales price, sales volume contribution and variable cost variances
D Changes in the corporation tax rate

Question 28

Credit sales are £50,000 in May and £60,000 in June. Customers pay one month after the sale. How much cash will be received from credit customers in June?

A £60,000
B £50,000
C £110,000
D £55,000

Question 29

The standard usage is 5 kg per unit at £6 per kg. Actual production was 1,000 units using 5,200 kg. What is the materials usage variance?

A £1,200 favourable
B £31,200 adverse
C £200 adverse
D £1,200 adverse

Question 30

The standard time is 2 hours per unit at £9 per hour. Actual production was 2,500 units using 4,800 hours. What is the labour efficiency variance?

A £1,800 favourable
B £1,800 adverse
C £200 favourable
D £43,200 favourable

Question 31

In an integrated accounting system, the purchase of raw materials on credit would be recorded by:

A Debiting work in progress and crediting cash
B Debiting payables and crediting the material control account
C Debiting the material control account and crediting payables
D Debiting finished goods and crediting material control

Question 32

Performance measurement in a not-for-profit organisation is often based on the 'three Es'. These are:

A Economy, efficiency and effectiveness
B Earnings, expenses and equity
C Engagement, ethics and environment
D Expansion, exports and employment

Question 33

Which of the following is a non-financial performance indicator for a service business?

A Net profit margin percentage
B Average customer waiting time
C Return on capital employed
D Gross profit for the period

Question 34

Sales were £40,000 in March, £55,000 in April and £60,000 in May. Customers pay 50% in the month of sale and 50% in the following month. How much cash is received in April?

A £47,500
B £55,000
C £60,000
D £50,000

Question 35

Variable overhead is absorbed at £4 per labour hour. The standard hours for actual output were 2,000, but 2,150 hours were actually worked. What is the variable overhead efficiency variance?

A £600 favourable
B £8,600 adverse
C £150 adverse
D £600 adverse

Question 36

The sales budget is 7,000 units at a selling price of £35 each. What is the budgeted sales revenue?

A £200,000
B £245,000
C £42,000
D £35,000

Question 37

Budgeted sales were 4,000 units and actual sales were 3,600 units. The standard contribution is £15 per unit. In a marginal costing system, what is the sales volume contribution variance?

A £400 adverse
B £6,000 favourable
C £6,000 adverse
D £54,000 adverse

Question 38

A favourable materials price variance combined with an adverse materials usage variance is most likely explained by:

A Buying higher-quality material at a higher price
B Selling a greater number of units than budgeted
C Paying workers a higher hourly rate
D Buying cheaper material that ends up being wasted more

Question 39

The capacity ratio compares:

A Fixed costs with variable costs incurred
B Total sales with total costs incurred
C Contribution with total sales revenue
D The actual hours worked with the budgeted hours

Question 40

A project's outcomes are estimated as follows: a 0.3 probability of a £20,000 profit, a 0.5 probability of a £10,000 profit, and a 0.2 probability of a £5,000 loss. What is the expected value of the project's outcome?

A £10,000
B £12,000
C £11,000
D £8,333

Question 41

In decision making, the distinction between risk and uncertainty is that:

A Under risk probabilities are known or estimable; under uncertainty they cannot be
B Risk and uncertainty mean exactly the same thing
C Risk applies only to purely financial business decisions
D Uncertainty can always be removed by gathering more data

Question 42

A decision has three possible outcomes: a £30,000 profit (probability 0.5), a £10,000 profit (probability 0.3), and a £20,000 loss (probability 0.2). What is the expected value?

A £18,000
B £14,000
C £20,000
D £6,667

Question 43

When comparing two projects with the same expected return, the standard deviation of returns is used as a measure of:

A The expected profit of each project
B The payback period of each project
C The risk of each project
D The tax payable on each project

Question 44

A product sells for £50 with a variable cost of £30. What is the contribution to sales (C/S) ratio?

A 60%
B 40%
C 20%
D 167%

Question 45

A project requires an investment of £24,000 and generates constant net cash inflows of £8,000 per year. What is the payback period?

A 3 years
B 2 years
C 4 years
D 2.4 years

Question 46

Project A has an expected return of £200 with a standard deviation of £40. What is its coefficient of variation, expressed as a percentage?

A 5%
B 20%
C 500%
D 40%

Question 47

In a normal distribution, approximately what percentage of observations lie within two standard deviations of the mean?

A 68%
B 50%
C 95%
D 99.7%

Question 48

Budgeted sales are 10,000 units and the breakeven point is 7,500 units. What is the margin of safety as a percentage of budgeted sales?

A 2,500%
B 75%
C 33%
D 25%

Question 49

Labour hours are scarce. Product P earns £40 contribution and uses 4 labour hours; product Q earns £36 contribution and uses 3 labour hours. What is the contribution per labour hour for the product that should be made first?

A £10
B £12
C £40
D £36

Question 50

A product sells for £25, has a variable cost of £15, and the company's fixed costs are £80,000. What is the breakeven sales revenue?

A £200,000
B £133,333
C £80,000
D £320,000

Question 51

A component costs £22 per unit to make (£14 variable plus £8 fixed overhead absorbed). The fixed overhead is unavoidable. A supplier offers the component for £18. What is the relevant cost comparison per unit?

A Make at £14 vs buy at £26 — make is cheaper
B Make at £22 vs buy at £18 — buy is cheaper
C Make at £14 vs buy at £18 — make is cheaper
D The two options cost the same

Question 52

The concept of the time value of money is based on the principle that:

A Money loses all its value over time
B Future cash flows should never be discounted
C Inflation has no meaningful effect on money at all
D A sum today is worth more than the same sum in future

Question 53

A project costs £25,000 and generates £7,000 per year for 5 years. Using a 5-year annuity factor at 12% of 3.605, what is the net present value, to the nearest £?

A £10,000
B £235
C £25,235
D -£235

Question 54

A product sells for £60, has a variable cost of £36 per unit, and the company's fixed costs are £144,000. How many units must be sold to break even?

A 4,000 units
B 6,000 units
C 2,400 units
D 3,600 units

Question 55

Budgeted sales are 8,000 units and the breakeven point is 6,000 units. What is the margin of safety in units?

A 8,000 units
B 6,000 units
C 2,000 units
D 14,000 units

Question 56

In a normal distribution, the mean, the median and the mode are:

A All equal to one another
B All different from one another
C Always equal to zero
D Impossible to determine

Question 57

A decision has three possible outcomes: £80,000 (probability 0.25), £40,000 (probability 0.5) and £10,000 (probability 0.25). What is the expected value?

A £42,500
B £43,333
C £40,000
D £130,000

Question 58

A product has a contribution of £25 per unit. Fixed costs are £200,000 and the company has a target profit of £75,000. How many units must be sold?

A 8,000 units
B 11,000 units
C 3,000 units
D 13,750 units

Question 59

When deciding whether to make or buy a component, with spare capacity available, the buy-in price should be compared with the:

A Full absorption cost of making the component
B Marginal cost of making, plus any avoidable fixed costs
C Selling price of the finished product
D Original cost of the machinery used in production

Question 60

A limitation of using expected value to evaluate a one-off decision is that:

A It is impossible to calculate without a computer
B The expected value may not equal any of the actual possible outcomes
C It ignores the probabilities of the outcomes
D It can only ever be applied to non-financial data

Answer key

1 C	**13** A	**25** C	**37** C	**49** B
2 D	**14** B	**26** B	**38** D	**50** A
3 A	**15** A	**27** C	**39** D	**51** C
4 C	**16** B	**28** B	**40** A	**52** D
5 C	**17** C	**29** D	**41** A	**53** B
6 D	**18** B	**30** A	**42** B	**54** B
7 C	**19** C	**31** C	**43** C	**55** C
8 A	**20** B	**32** A	**44** B	**56** A
9 D	**21** A	**33** B	**45** A	**57** A
10 D	**22** B	**34** A	**46** B	**58** B
11 D	**23** C	**35** D	**47** C	**59** B
12 D	**24** B	**36** B	**48** D	**60** B

Score: count your correct answers out of 60. Then work through the explanations below.

Answers and explanations

Question 1: C A location, function or item for which costs are accumulated

A cost centre is a location, function, department or item of equipment to which costs are charged and accumulated for control purposes. A unit of product or service for which costs are ascertained is a cost unit, the total organisational cost is simply total cost, and a profit measure relates to a profit centre. Distinguishing cost units from cost centres is fundamental to how costs are collected and reported.

Section A, Cost unit and cost centre · Ref A1c · ba2052

Question 2: D By providing timely, relevant analysis to inform planning and control

The management accountant supports operational managers by supplying timely and relevant analysis — budgets, variances, costings and forecasts — that informs their planning and control decisions. The role is not to audit decisions after the event, to set personal bonuses, or to prepare statutory accounts for external use. Working alongside managers to improve the quality of decisions is the essence of the relationship.

Section A, Management accountant and managers · Ref A1d · ba2053

Question 3: A A selling and distribution cost

A sales representative's salary is incurred to win and service sales, so it is classified by function as a selling and distribution cost. Production costs relate to making the product, administration costs to the general running of the business, and finance costs to the cost of funding. Classifying costs by function (production, selling, administration, finance) helps structure the income statement and analyse where costs arise.

Section A, Cost classification by function · Ref A1c · ba2078

Question 4: C Feedback control

Feedback control compares actual outcomes with the plan after the event and uses the variances to guide corrective action. Feedforward control, by contrast, compares a forecast of expected results with the plan before the event so that action can be taken in advance. Strategic planning sets long-term direction, and cost apportionment shares overheads between cost centres. Acting on differences after they arise is the feedback loop.

Section A, Feedback control · Ref A1d · ba2103

Question 5: C Professional competence and due care

Maintaining up-to-date knowledge and skill so that work meets the required professional standard is the principle of professional competence and due care. Confidentiality concerns protecting information, and objectivity concerns not letting bias or conflicts of interest influence judgement. Keeping skills current ensures the accountant remains capable of giving competent advice, which is what this principle requires.

Section A, Professional competence and due care · Ref A2a · ba2127

Question 6: D Anything requiring a separate measurement of cost

A cost object is anything for which a separate measurement of cost is wanted — it could be a product, a service, a project, a customer or a department. It is not limited to a single physical product, nor is it the total overhead of a department or a variance. Defining the cost object clearly is the starting point for deciding which costs to collect and how to attribute them.

Section A, Cost object · Ref A1c · ba2128

Question 7: C Stepped fixed cost

The cost is fixed within a range of activity but jumps to a new fixed level once capacity is exceeded — the defining pattern of a stepped fixed cost. A variable cost would change continuously with each unit stored. A semi-variable cost has both a fixed and a variable element that varies with every unit. A pure fixed cost would not change at all across the activity range described. Recognising stepped costs matters because treating them as ordinary fixed costs understates cost at higher activity.

Section B, Cost behaviour · Ref B1b · ba2002

Question 8: A £14,000

Let S and M be the total costs after reciprocal servicing. S = 18,000 + 0.50M and M = 9,000 + 0.20S. Substituting: M = 9,000 + 0.20(18,000 + 0.50M) = 9,000 + 3,600 + 0.10M, so 0.90M = 12,600 and M = £14,000. The £12,600 figure is the step-down result: it includes Stores' 20% share but ignores the 50% of Maintenance's cost that goes back to Stores; £9,000 is the primary allocation before any reapportionment; and £18,000 is the Stores primary figure.

Section B, Reciprocal servicing · Ref B2a · ba2005

Question 9: D £46,000

Production exceeded sales by 1,000 units, so inventory increased by 1,000 units. Under absorption costing, £6 of fixed overhead is carried forward in each unit of closing inventory, deferring £1,000 × £6 = £6,000 of fixed overhead to the next period. Absorption profit therefore exceeds marginal profit by £6,000: £40,000 + £6,000 = £46,000. The £34,000 figure subtracts the difference — the adjustment is reversed only when inventory falls; £40,000 ignores the inventory change; and £6,000 is the difference alone.

Section B, Absorption vs marginal profit · Ref B2d · ba2009

Question 10: D £120.00

A margin is expressed as a percentage of selling price, so cost represents the remaining 75%: selling price = £90 ÷ 0.75 = £120.00. The £112.50 figure is the classic margin/mark-up error — adding 25% to cost (£90 × 1.25) gives a 25% mark-up, not a 25% margin. The £72.00 figure deducts 20% from cost (£90 × 0.80), and £108.00 adds 20%. 'Margin' is based on selling price while 'mark-up' is based on cost.

Section B, Margin vs mark-up pricing · Ref B2e · ba2010

Question 11: D Floor area occupied by each department

Rent and rates relate to the premises, so floor area occupied is the most appropriate and commonly used basis for apportioning them across departments. Number of employees suits costs such as canteen or personnel; machinery value suits insurance or depreciation of plant; and labour hours are an absorption basis for production overhead. The apportionment basis should reflect the way each department causes or benefits from the cost.

Section B, Overhead apportionment basis · Ref B2a · ba2029

Question 12: D £25,000

Variable cost per unit = (£88,000 − £60,000) ÷ (9,000 − 5,000) = £28,000 ÷ 4,000 = £7.00. Fixed cost = total cost − variable cost = £60,000 − (5,000 × £7.00) = £60,000 − £35,000 = £25,000 (confirmed at the high point: £88,000 − 9,000 × £7 = £25,000). The £7.00 figure is the variable cost per unit, not the fixed cost; £28,000 is the cost difference; and £60,000 is a total cost, not the fixed element.

Section B, High-low method · Ref B1c · ba2033

Question 13: A £84

A mark-up is added to cost, so selling price = £60 × (1 + 0.40) = £60 × 1.40 = £84. A mark-up of 40% on cost is not the same as a 40% margin on selling price (which would give £100). The £42 and £36 figures reduce rather than increase the cost. Mark-up is always based on cost, whereas margin is based on selling price — a frequent source of error.

Section B, Mark-up pricing · Ref B2e · ba2034

Question 14: B £12,000

P2 receives 40% of the service department overhead: £30,000 × 40% = £12,000 (and P1 receives the remaining £18,000). The £18,000 figure is P1's share, not P2's. The £15,000 figure would be an even split, which does not match the 60:40 ratio. Service department costs are reapportioned to production departments so that all overhead is ultimately recovered through production cost units.

Section B, Reapportionment (direct method) · Ref B2a · ba2055

Question 15: A £60.00

With a 20% margin on selling price, cost represents 80% of the selling price: selling price = £48 ÷ 0.80 = £60.00. The £57.60 figure adds 20% to cost (£48 × 1.20), which is a 20% mark-up, not a 20% margin. The £40.00 figure divides cost by 1.20 instead of 0.80. The distinction is that a margin is based on selling price (divide by 1 − margin) while a mark-up is based on cost (multiply by 1 + mark-up). £58.00 does not follow from either a margin or a mark-up calculation.

Section B, Margin pricing · Ref B2e · ba2058

Question 16: B A sunk cost

The £5,000 has already been spent and cannot be recovered, so it is a sunk cost and is irrelevant to the launch decision. A relevant cost is a future cash flow affected by the decision, and an opportunity cost is the benefit forgone from the next best alternative — neither describes money already committed. Sunk costs should be ignored in decision making because they do not change with the choice made.

Section B, Sunk cost · Ref B1d · ba2079

Question 17: C £32

Overhead absorbed = 150% × £8 direct labour = £12. Full production cost = direct materials £12 + direct labour £8 + overhead £12 = £32. The £20 figure is prime cost only (materials plus labour), omitting overhead. The £30 figure applies 150% to prime cost (£20 × 1.5) instead of adding 150% of direct labour as overhead. When overhead is absorbed as a percentage of labour cost, the percentage is applied to the direct labour figure. £44 counts the £12 overhead twice.

Section B, Full cost per unit · Ref B2b · ba2080

Question 18: B £50

Required annual profit = 20% × £500,000 = £100,000. Required profit per unit = £100,000 ÷ 10,000 units = £10. Selling price = unit cost £40 + required profit £10 = £50. £48 adds a 20% mark-up to cost (£40 × 1.20), confusing return on investment with a mark-up on cost. £44 adds only 10% to cost, and £60 adds £20 a unit, double the profit required. Return-on-investment pricing adds the profit required to earn the target return on the investment to the unit cost.

Section B, Return on investment pricing · Ref B2e · ba2083

Question 19: C A stepped fixed cost

Supervisory cost stays constant over a band of activity (up to 20 workers) and then jumps to a new fixed level when another supervisor is required — the pattern of a stepped fixed cost. A purely variable cost would change continuously with each unit, and a semi-variable cost has a fixed plus a continuously variable element. The cost is an indirect overhead, not a direct cost of each unit. The step pattern is the key feature.

Section B, Stepped fixed cost · Ref B1b · ba2084

Question 20: B £56,000

Inventory rose by 2,000 units (production exceeded sales). Under absorption costing, £3 of fixed overhead is carried forward in each unit of closing inventory, deferring 2,000 × £3 = £6,000 to the next period, so absorption profit exceeds marginal profit by £6,000: £50,000 + £6,000 = £56,000. The £44,000 figure subtracts the difference, which would apply only if inventory had fallen. When inventory rises, absorption profit is the higher of the two.

Section B, Absorption vs marginal (inventory rise) · Ref B2d · ba2106

Question 21: A The hire income forgone by not renting it out

Opportunity cost is the benefit forgone from the next best alternative use of a resource. Using the machine for the order means giving up the hire income it would otherwise earn, so that lost income is the relevant opportunity cost. The original purchase cost is sunk, depreciation is a non-cash accounting allocation, and the cost is not zero just because the machine is owned — the forgone hire income is a real economic cost.

Section B, Opportunity cost · Ref B1d · ba2133

Question 22: B 48,000 units

Production budget = sales + closing inventory − opening inventory = 50,000 + 6,000 − 8,000 = 48,000 units. Because closing inventory is lower than opening inventory, some demand is met from existing stock, so production is below sales. The 50,000 figure ignores the inventory movement; 52,000 reverses the adjustment, adding opening and deducting closing; and 64,000 adds both inventory figures to sales.

Section C, Production budget · Ref C1b · ba2012

Question 23: C A printing firm producing customised orders to individual customer specifications

Job costing is used where output consists of separately identifiable jobs made to customer specification, such as bespoke printing orders, so that costs can be accumulated per job. The other three describe continuous or homogeneous output, which is suited to process costing — costs are averaged over large volumes of identical output rather than traced to individual jobs.

Section C, Job costing · Ref C4c · ba2020

Question 24: B 42,000 kg

Purchases budget = material needed for production + closing inventory − opening inventory = 40,000 + 7,000 − 5,000 = 42,000 kg. Because the company wants to raise its inventory, it must buy more than it uses. The 38,000 figure reverses the inventory adjustment, and 40,000 ignores the inventory movement altogether. The logic mirrors the production budget but applied to materials rather than finished units. 52,000 adds both the opening and the closing inventory to the production requirement.

Section C, Materials purchases budget · Ref C1b · ba2035

Question 25: C The summary budget combining all functional budgets into one overall plan

The master budget is the overall summary that consolidates the individual functional budgets (sales, production, materials and so on) into a budgeted income statement, statement of financial position and cash budget for the whole organisation. A single-department budget is a functional budget, a continuously updated budget is a rolling budget, and a capital-only budget is a capital expenditure budget. The master budget brings everything together.

Section C, Master budget · Ref C1c · ba2036

Question 26: B £3,000 adverse

Rate variance = (standard rate × actual hours) − actual cost = (6,000 × £10) − £63,000 = £60,000 − £63,000 = −£3,000, i.e. £3,000 adverse, because the actual rate (£10.50/hour) was higher than the standard £10. The favourable version reverses the sign. The £6,300 figure misreads the data. The rate variance measures only the effect of paying a different rate than standard for the hours actually worked.

Section C, Labour rate variance · Ref C2b · ba2039

Question 27: C Sales price, sales volume contribution and variable cost variances

Under marginal costing, the operating statement reconciles budgeted to actual results using the sales price variance, the sales volume contribution variance and the variable cost variances (materials, labour and variable overhead), with fixed overhead handled separately as a period cost. A fixed overhead volume variance belongs to absorption costing, not marginal costing. Depreciation, amortisation and tax rates are not the reconciling items in this statement.

Section C, Marginal costing reconciliation · Ref C2c · ba2040

Question 28: B £50,000

Because customers pay one month after the sale, the cash received in June relates to May's sales of £50,000. June's sales of £60,000 will be received in July. The £60,000 figure ignores the one-month lag, and £110,000 adds both months as if received together. A cash budget records receipts when the cash actually arrives, not when the sale is made — the timing difference is the whole point of the exercise. £55,000 averages the two months, which ignores the one-month lag.

Section C, Cash budget receipts timing · Ref C1d · ba2059

Question 29: D £1,200 adverse

Usage variance = (standard quantity for actual output − actual quantity) × standard price = (1,000 × 5 − 5,200) × £6 = (5,000 − 5,200) × £6 = −£1,200, i.e. £1,200 adverse, because 200 kg more than standard was used. The favourable version has the wrong direction. The £200 figure omits the standard price. The usage variance values the excess or saving in quantity at the standard price per kg. £31,200 is the actual quantity at standard price (5,200 × £6), not a variance.

Section C, Materials usage variance · Ref C2b · ba2061

Question 30: A £1,800 favourable

Efficiency variance = (standard hours for actual output − actual hours) × standard rate = (2,500 × 2 − 4,800) × £9 = (5,000 − 4,800) × £9 = £1,800 favourable, because 200 fewer hours than standard were used. The adverse version reverses the sign. The £200 figure omits the standard rate. The efficiency variance values the time saved or lost at the standard rate per hour. £43,200 is the actual hours at standard rate (4,800 × £9), not a variance.

Section C, Labour efficiency variance · Ref C2b · ba2062

Question 31: C Debiting the material control account and crediting payables

Buying raw materials on credit increases the material (stores) control account, which is debited, and increases the amount owed, so payables are credited. Debiting payables would reduce the liability, which is wrong for a purchase. The work-in-progress and finished-goods entries relate to later stages of production. Integrated accounts combine cost and financial records, so the cost ledger entries follow normal double-entry principles.

Section C, Integrated accounts entries · Ref C4a · ba2064

Question 32: A Economy, efficiency and effectiveness

Not-for-profit performance is commonly assessed using value for money — economy (obtaining resources at low cost), efficiency (getting the most output from resources) and effectiveness (achieving the intended objectives). Because there is no profit measure, these three Es provide a structured alternative. The other options are not the recognised framework; the value-for-money model is what the three Es refer to.

Section C, Performance in not-for-profit · Ref C4d · ba2090

Question 33: B Average customer waiting time

Average customer waiting time measures service quality in non-monetary terms and is a non-financial performance indicator, particularly important in service businesses where quality and timeliness matter. Net profit margin, return on capital employed and gross profit are all financial measures expressed in money. Good performance measurement combines financial indicators with non-financial ones such as quality, speed and customer satisfaction.

Section C, Non-financial performance indicator · Ref C3b · ba2091

Question 34: A £47,500

April receipts = 50% of April sales + 50% of March sales = (0.5 × £55,000) + (0.5 × £40,000) = £27,500 + £20,000 = £47,500. The £55,000 figure ignores the split and the timing lag. A cash budget records receipts when the cash actually arrives, so each month's cash combines part of the current month's sales with part of the previous month's, reflecting the payment pattern. £50,000 takes half of March and May sales instead of March and April.

Section C, Cash budget receipts · Ref C1d · ba2109

Question 35: D £600 adverse

Efficiency variance = (standard hours for actual output − actual hours) × standard variable overhead rate = (2,000 − 2,150) × £4 = −£600, i.e. £600 adverse, because more hours than standard were taken, absorbing more variable overhead. The favourable version reverses the sign. The £150 figure omits the £4 rate. The variable overhead efficiency variance follows the labour efficiency variance, valued at the variable overhead rate per hour. £8,600 is the actual hours at the standard rate (2,150 × £4), not a variance.

Section C, Variable overhead efficiency variance · Ref C2b · ba2112

Question 36: B £245,000

Budgeted sales revenue = units × selling price = 7,000 × £35 = £245,000. The sales budget is usually the starting point for the whole budgeting process, since production, materials and other budgets flow from expected sales. The other figures do not follow from multiplying the budgeted volume by the budgeted price, which is the basic revenue calculation.

Section C, Sales budget revenue · Ref C1b · ba2134

Question 37: C £6,000 adverse

Sales volume contribution variance = (actual units − budgeted units) × standard contribution = (3,600 − 4,000) × £15 = −£6,000, i.e. £6,000 adverse, because fewer units were sold than budgeted. The favourable version reverses the sign. The £400 figure is the volume shortfall in units, not valued. In marginal costing the volume variance is valued at standard contribution per unit, not standard profit. £54,000 is the actual sales volume at standard contribution (3,600 × £15), not a variance.

Section C, Sales volume contribution variance · Ref C2b · ba2135

Question 38: D Buying cheaper material that ends up being wasted more

Buying cheaper material gives a favourable price variance, but lower-quality material is often wasted or rejected, increasing usage above standard and producing an adverse usage variance — a classic interrelationship. Higher-quality material at a higher price would give the opposite price variance. Wage rates affect labour variances, and sales volume affects sales variances, neither of which explains this materials pairing. Variances should be read together, not in isolation.

Section C, Variance interrelationship · Ref C2d · ba2136

Question 39: D The actual hours worked with the budgeted hours

The capacity ratio measures how much of the budgeted capacity was used by expressing the actual hours worked as a percentage of the budgeted hours. It is distinct from the efficiency ratio (actual output in standard hours against actual hours) and the activity ratio, also called the production volume ratio (output in standard hours against budgeted hours). It is not about comparing sales, contribution or cost types. The capacity ratio focuses on hours worked relative to plan.

Section C, Capacity ratio · Ref C3b · ba2140

Question 40: A £10,000

Expected value = Σ(probability × outcome) = (0.3 × £20,000) + (0.5 × £10,000) + (0.2 × −£5,000) = £6,000 + £5,000 − £1,000 = £10,000. The £12,000 figure adds the loss instead of subtracting it; £11,000 mishandles the loss probability; and £8,333 is the simple unweighted average of the three outcomes, ignoring the probabilities. Expected value weights each outcome by its probability and treats losses as negative.

Section D, Expected values · Ref D1b · ba2021

Question 41: A Under risk probabilities are known or estimable; under uncertainty they cannot be

Risk describes situations where the possible outcomes and their probabilities are known or can be estimated, allowing tools such as expected values to be used. Uncertainty describes situations where probabilities cannot meaningfully be assigned. The two are not synonyms, risk is not confined to financial decisions, and uncertainty cannot always be eliminated by more data. The availability of probabilities is the key dividing line.

Section D, Risk vs uncertainty · Ref D1a · ba2042

Question 42: B £14,000

Expected value = (0.5 × £30,000) + (0.3 × £10,000) + (0.2 × −£20,000) = £15,000 + £3,000 − £4,000 = £14,000. The £18,000 figure ignores the loss altogether (£15,000 + £3,000). The £6,667 figure is the unweighted average of the three outcomes, ignoring the probabilities. Expected value weights each outcome by its probability and treats the loss as a negative amount.

Section D, Expected value with a loss · Ref D1b · ba2043

Question 43: C The risk of each project

For projects with the same expected return, the one with the higher standard deviation of returns has the greater spread of possible outcomes and is therefore the riskier. Standard deviation measures dispersion, not the level of expected profit, the payback period, or any tax effect. Where expected returns differ, the coefficient of variation (standard deviation relative to the mean) gives a better risk comparison.

Section D, Standard deviation as risk · Ref D1c · ba2044

Question 44: B 40%

Contribution per unit = £50 − £30 = £20. The contribution to sales ratio = contribution ÷ selling price = £20 ÷ £50 = 0.40, or 40%. The 60% figure is the variable cost to sales ratio (£30 ÷ £50). The C/S ratio is useful for finding the breakeven revenue (fixed costs ÷ C/S ratio) and for products measured in revenue rather than units. It expresses contribution as a proportion of selling price. 167% divides selling price by variable cost (£50 ÷ £30), which is not a contribution measure.

Section D, Contribution to sales ratio · Ref D2a · ba2047

Question 45: A 3 years

With constant annual inflows, payback period = initial investment ÷ annual inflow = £24,000 ÷ £8,000 = 3 years. Payback measures how quickly the original outlay is recovered in cash terms and ignores both the time value of money and any cash received after the payback point. The other figures do not match £24,000 recovered at £8,000 a year. A shorter payback is generally regarded as less risky.

Section D, Payback with even cash flows · Ref D3c · ba2050

Question 46: B 20%

Coefficient of variation = standard deviation ÷ mean = £40 ÷ £200 = 0.20, or 20%. It expresses risk relative to the expected return, which allows a fair comparison of risk between projects of different sizes. The 500% figure inverts the ratio (mean ÷ standard deviation), and 5% takes the inverted ratio (£200 ÷ £40 = 5) and reads it as a percentage. A lower coefficient of variation means less risk per unit of return.

Section D, Coefficient of variation comparison · Ref D1c · ba2067

Question 47: C 95%

For a normal distribution, about 95% of observations fall within two standard deviations of the mean, while roughly 68% fall within one standard deviation and about 99.7% within three. The 50% figure would be the proportion below the mean. These benchmark percentages of the normal curve are widely used to assess how likely a value within a given range is.

Section D, Normal distribution · Ref D1d · ba2068

Question 48: D 25%

Margin of safety in units = 10,000 − 7,500 = 2,500 units. As a percentage of budgeted sales = 2,500 ÷ 10,000 = 25%. This shows sales could fall by a quarter before the company makes a loss. The 75% figure expresses the breakeven point as a proportion of budgeted sales, not the margin of safety, and 33% wrongly uses breakeven as the denominator. The margin of safety is measured relative to budgeted sales.

Section D, Margin of safety percentage · Ref D2a · ba2069

Question 49: B £12

When one resource is scarce, products are ranked by contribution per unit of that resource. Product P earns £40 ÷ 4 = £10 per labour hour; product Q earns £36 ÷ 3 = £12 per labour hour. Product Q has the higher contribution per scarce labour hour (£12) and should be made first. The £40 and £36 figures are the contributions per unit, not per labour hour, and ranking by those would give the wrong priority.

Section D, Limiting factor ranking · Ref D2c · ba2071

Question 50: A £200,000

Contribution per unit = £25 − £15 = £10, so breakeven volume = £80,000 ÷ £10 = 8,000 units. Breakeven revenue = 8,000 × £25 = £200,000 (equivalently, fixed costs ÷ C/S ratio = £80,000 ÷ 0.40 = £200,000). The £133,333 figure uses an incorrect ratio, and £80,000 is the fixed cost, not the breakeven revenue. Breakeven revenue is the sales value at which total contribution equals fixed costs. £320,000 does not follow from the figures given.

Section D, Breakeven revenue · Ref D2a · ba2094

Question 51: C Make at £14 vs buy at £18 — make is cheaper

Because the £8 fixed overhead is unavoidable (it will be incurred whether the component is made or bought), it is not relevant to the decision. The relevant cost of making is the £14 variable cost, which is compared with the £18 buy-in price. Making is therefore £4 per unit cheaper. Comparing the full £22 with £18 would wrongly include the unavoidable fixed overhead. Only avoidable, incremental costs are relevant in a make-or-buy decision. Adding the £8 fixed overhead to the buy price (£26) is equally wrong, because an unavoidable cost is incurred under both options. The costs are not equal: making saves £4 a unit.

Section D, Make-or-buy with relevant cost · Ref D2b · ba2096

Question 52: D A sum today is worth more than the same sum in future

The time value of money holds that a sum received today is worth more than the same sum received later, because money in hand can be invested to earn a return (and because of risk and inflation). It does not mean money loses all value or that inflation is irrelevant. Discounting future cash flows to present value is the practical application of this principle, not something to be avoided.

Section D, Time value of money · Ref D3a · ba2097

Question 53: B £235

Present value of inflows = £7,000 × 3.605 = £25,235. NPV = £25,235 − £25,000 = £235. The small positive NPV suggests the project is marginally worthwhile at a 12% cost of capital. The £10,000 figure is the undiscounted net cash flow (£35,000 − £25,000), ignoring discounting, and £25,235 omits the initial investment. The annuity factor discounts the five equal annual receipts in a single calculation.

Section D, NPV with annuity factor · Ref D3c · ba2098

Question 54: B 6,000 units

Contribution per unit = £60 − £36 = £24. Breakeven point = fixed costs ÷ contribution per unit = £144,000 ÷ £24 = 6,000 units. The 2,400-unit figure divides fixed costs by the selling price, and 4,000 divides by the variable cost. Breakeven is the volume at which total contribution exactly covers fixed costs, so contribution per unit is always the correct divisor.

Section D, Breakeven point · Ref D2a · ba2118

Question 55: C 2,000 units

Margin of safety = budgeted sales − breakeven sales = 8,000 − 6,000 = 2,000 units. It shows by how much sales can fall before the company moves into a loss. The 6,000-unit figure is the breakeven point itself, 8,000 is budgeted sales, and 14,000 wrongly adds the two together. The margin of safety is the cushion between expected sales and the breakeven level.

Section D, Margin of safety · Ref D2a · ba2119

Question 56: A All equal to one another

A normal distribution is symmetrical and bell-shaped, so its mean, median and mode all coincide at the centre. They are not different from one another, nor are they necessarily zero — the mean can take any value. The symmetry of the normal curve is what makes the three measures of central tendency equal, a property used when applying the distribution to probability questions.

Section D, Normal distribution properties · Ref D1d · ba2125

Question 57: A £42,500

Expected value = (0.25 × £80,000) + (0.5 × £40,000) + (0.25 × £10,000) = £20,000 + £20,000 + £2,500 = £42,500. The £43,333 figure is the simple unweighted average of the three outcomes, ignoring the probabilities, and £130,000 is the sum of the outcomes. Expected value weights each outcome by its probability, giving more influence to the more likely £40,000 result.

Section D, Expected value calculation · Ref D1b · ba2141

Question 58: B 11,000 units

Units required = (fixed costs + target profit) ÷ contribution per unit = (£200,000 + £75,000) ÷ £25 = £275,000 ÷ £25 = 11,000 units. The 8,000-unit figure covers only the fixed costs, omitting the target profit, and 3,000 covers only the profit. To reach a target profit, total contribution must cover both fixed costs and the desired profit, so both are included in the numerator. 13,750 divides by £20 instead of the £25 contribution per unit.

Section D, Target profit units · Ref D2a · ba2142

Question 59: B Marginal cost of making, plus any avoidable fixed costs

The relevant cost of making is the marginal (variable) cost plus any fixed costs that would be avoided if the component were bought in; this is what should be compared with the buy-in price. The full absorption cost includes unavoidable fixed overheads that do not change with the decision and so overstates the make cost. The product's selling price and the sunk machinery cost are irrelevant to the choice. Only avoidable, incremental costs count.

Section D, Make-or-buy comparison · Ref D2b · ba2146

Question 60: B The expected value may not equal any of the actual possible outcomes

Expected value is a long-run average, so for a single, one-off decision the calculated figure may not match any outcome that can actually occur, and it also takes no account of the decision maker's attitude to risk. It is straightforward to calculate, it explicitly uses the probabilities of outcomes, and it applies to financial data. The mismatch between a long-run average and a single real outcome is the key limitation for one-off decisions.

Section D, Limitation of expected value · Ref D1b · ba2150