

# C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

## Sample Exam Paper

### Question 1

Which of the following words **DOES NOT** describe a main focus of management accounting?

- A. Planning
- B. Control
- C. External
- D. Decision-making

### Question 2

CIMA defines management accounting as:

“The application of the principles of accounting and financial management to create, protect, preserve and increase value for the \_\_\_\_\_ of for-profit and not-for profit enterprises in the public and private sectors”.

- A. Auditors
- B. Stakeholders
- C. Owners
- D. Customers

### Question 3

Which of the following statements are true?

1. The main role of the management accountant is to produce financial accounts
  2. Management accountants always work within the finance function
  3. Management accountants always work in partnership with business managers
- A. 1 and 2 only
  - B. 2 and 3 only
  - C. 1 and 3 only
  - D. None of the above.

### Question 4

Which of the following words complete the statement below?

\_\_\_\_\_ accounts are prepared for external stakeholders.

Management accounts are prepared for \_\_\_\_\_ stakeholders.

- A. Shadow, Internal
- B. Financial, Internal
- C. Financial, External
- D. Internal, Budget

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 5

Which **THREE** of the following statements about CIMA are true?

- A. CIMA was established over 90 years ago
- B. CIMA members may only work in the UK
- C. CIMA members and students must comply with the CIMA code of ethics
- D. CIMA members work mainly on the production of financial accounts
- E. CIMA members are not qualified to work as finance directors
- F. CIMA members work in all areas of business

### Question 6

ABC absorbs fixed production overheads in one of its departments on the basis of machine hours. There were 100,000 budgeted machine hours for the forthcoming period. The fixed production overhead absorption rate was £2.50 per machine hour.

During the period, the following actual results were recorded:

Standard machine hours 110,000  
Fixed production overheads \$300,000

Which **ONE** of the following statements is correct?

- A. Overhead was \$25,000 over-absorbed
- B. Overhead was \$25,000 under-absorbed
- C. Overhead was \$50,000 over-absorbed
- D. No under- or over-absorption occurred

### Question 7

The audit fee paid by a manufacturing company would be classified by that company as:

- A. A production overhead cost
- B. A selling and distribution cost
- C. A research and development cost
- D. An administration cost

### Question 8

Cost centres are

- A. Units of output or service for which costs are ascertained.
- B. Functions or locations for which costs are ascertained.
- C. A segment of the organisation for which budgets are prepared.
- D. Amounts of expenditure attributable to various activities.

### Question 9

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

A company uses the repeated distribution method to reapportion service department costs. The use of this method suggests

- A. The company's overhead rates are based on estimates of cost and activity levels, rather than actual amounts
- B. There are more service departments than production cost centres
- C. The company wishes to avoid under- or over-absorption of overheads in its production cost centres
- D. The service departments carry out work for each other

### Question 10

Which **ONE** of the following costs would **NOT** be classified as a production overhead cost in a food processing company?

- A. The cost of renting the factory building
- B. The salary of the factory manager
- C. The depreciation of equipment located in the materials store
- D. The cost of ingredients

### Question 11

An engineering firm operates a job costing system. Production overhead is absorbed at the rate of \$8.50 per machine hour. In order to allow for non-production overhead costs and profit, a mark up of 60% of prime cost is added to the production cost when preparing price estimates.

The estimated requirements of job number 808 are as follows:

Direct materials	\$10,650
Direct labour	\$3,260
Machine hours	140

The estimated price notified to the customer for job number 808 will be

- A. \$22,256
- B. \$22,851
- C. \$23,446
- D. \$24,160

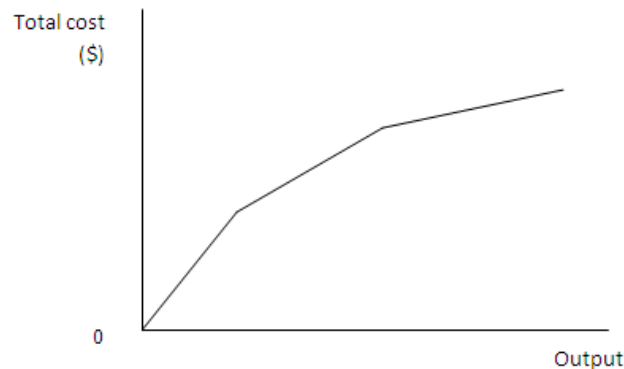
## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 12

The diagram represents the behaviour of a cost item as the level of output changes.



Which **ONE** of the following situations is described by the graph?

- A. Discounts are received on additional purchases of material when certain quantities are purchased.
- B. Employees are paid a guaranteed weekly wage, together with bonuses for higher levels of production.
- C. A licence is purchased from the government which allows unlimited production.
- D. Additional space is rented to cope with the need to increase production.

### Question 13

A hospital's records show that the cost of carrying out health checks in the last five accounting periods have been as follows:

<i>Period</i>	<i>Number of patients seen</i>	<i>Total cost (\$)</i>
1	650	17,125
2	940	17,800
3	1260	18,650
4	990	17,980
5	1150	18,360

Using the high-low method and ignoring inflation, the estimated cost of carrying out health checks on 850 patients in period 6 is:

- A. \$17,515

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

**CIMA**

- B. \$17,570
- C. \$17,625
- D. \$17,680

### Question 14

Which ONE of the following statements is true?

- A. The total variable cost varies with a measure of activity.
- B. A variable cost is an unavoidable cost.
- C. A variable cost is not relevant for decision-making.
- D. A variable cost becomes fixed in the long run.

### Question 15

The following data have been collected for four cost types; W, X, Y, and Z at two activity levels.

Cost type	Cost @ 100 units	Cost @ 140 units
W	8,000	10,560
X	5,000	5,000
Y	6,500	9,100
Z	6,700	8,580

Where V = variable, SV = semi-variable and F = fixed, assuming linearity, the four cost types W, X, Y and Z are respectively:

	W	X	Y	Z
A.	V	F	SV	V
B.	SV	F	V	SV
C.	V	F	V	V
D.	SV	F	SV	SV

### Question 16

Fixed costs are conventionally deemed to be:

- A. Constant per unit of output
- B. Constant in total when production volume changes
- C. Outside the control of management
- D. Those unaffected by inflation

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 17

Based on the data below, what is the amount of the overhead under-/over-absorbed?

Budgeted overheads	\$493,200
Budgeted machine hours	10,960
Actual machine hours	10,493
Actual overheads	\$514,157

- A. \$20,957 under-absorbed
- B. \$21,015 over-absorbed
- C. \$21,015 under-absorbed
- D. \$41,972 under-absorbed

### Question 18

The following details have been extracted from the receivables records of X:

Invoices paid in the month after sale	60%
Invoices paid in the second month after sale	20%
Invoices paid in the third month after sale	15%
Bad debts	5%

Credit sales for June to August 2011 are budgeted as follows:

June	\$100,000
July	\$150,000
August	\$130,000

Customers paying in the month after sale are entitled to deduct a 2% settlement discount. Invoices are issued on the last day of the month.

The amount budgeted to be received in September 2011 from credit sales is:

- A. \$115,190
- B. \$116,750
- C. \$121,440
- D. \$123,000

### Question 19

A flexible budget is;

- A. A budget which by recognising different cost behaviour patterns is designed to change as the volume of activity changes.
- B. A budget for a defined period of time which includes planned revenues, expenses, assets, liabilities and cash flow.
- C. A budget which is prepared for a period of one year which is reviewed monthly, whereby each time actual results are reported, a further forecast period is added and the intermediate period forecasts are updated.
- D. A budget of semi-variable production costs only.

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 20

The following extract is taken from the overhead budget of X:

Budgeted activity	50%	75%
Budgeted overhead	\$100,000	\$112,500

The overhead budget for an activity level of 80% would be

- A. \$115,000
- B. \$120,000
- C. \$136,000
- D. \$160,000

### Question 21

The term “budget slack” refers to the

- A. Extended lead time between the preparation of the functional budgets and the master budget.
- B. Difference between the budgeted output and the breakeven output.
- C. Additional capacity available which can be budgeted for.
- D. Deliberate over-estimation of costs and under-estimation of revenues in a budget.

### Question 22

RS is currently preparing the production budget for Product A and the material purchase budget for material X for the forthcoming year. Each unit of Product A requires 5 kgs of material X. The anticipated opening inventory for Product A is 5,000 units and the company wishes to increase the closing inventory by 30% by the end of the year.

The anticipated opening inventory for material X is 50,000 kgs and in order to avoid stock outs the required closing inventory has been increased to 60,000 kgs.

The Sales Director has confirmed a sales requirement of 70,000 units of Product A.

How many units of Product A will need to be produced?

- A. 68,500 units
- B. 71,500 units
- C. 76,500 units
- D. 80,000 units

### Question 23

RS is currently preparing the production budget for Product A and the material purchase budget for material X for the forthcoming year. Each unit of Product A requires 5 kgs of material X.

The anticipated opening inventory for Product A is 5,000 units and the company wishes to increase the closing inventory by 30% by the end of the year.

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

The anticipated opening inventory for material X is 50,000 kgs and in order to avoid stock outs the required closing inventory has been increased to 60,000 kgs.

The Sales Director has confirmed a sales requirement of 70,000 units of Product A. What will be the purchases budget for material X?

- A. 347,500 kgs
- B. 350,000 kgs
- C. 357,500 kgs
- D. 367,500 kgs

### Question 24

The principal budget factor is the

- A. Factor which limits the activities of the organisation and is often the starting point in budget preparation.
- B. Budgeted revenue expected in a forthcoming period.
- C. Main budget into which all subsidiary budgets are consolidated.
- D. Overestimation of revenue budgets and underestimation of cost budgets, which operates as a safety factor against risk.

**A**-The principal budget factor can also be known as the limiting factor as this factor usually indicates which budget should be prepared first. Failure to identify the principal budgeting factor at an early stage could lead to delays at a later stage when managers realise targets that were set are not feasible.

### Question 25

Which of the following would **NOT** be included in a cash budget?

- (i) Depreciation
- (ii) Provisions for doubtful debts
- (iii) Wages and salaries

- A. (i) and (ii) only
- B. (ii) and (iii) only
- C. (iii) only
- D. (i) only

### Question 26

Overtime premium is

- A. The additional amount paid for hours worked in excess of the basic working week.
- B. The additional amount paid over and above the normal hourly rate for hours worked in excess of the basic working week.
- C. The additional amount paid over and above the overtime rate for hours worked in excess of the basic working week.
- D. The overtime rate.



## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 27

A standard cost is

- A. The planned unit cost of a product, component or service in a period.
- B. The budgeted cost ascribed to the level of activity achieved in a budget centre in a control period.
- C. The budgeted production cost ascribed to the level of activity in a budget period.
- D. The budgeted non-production cost for a product, component or service in a period.

### Question 28

X operates a standard marginal costing system. The following budgeted and standard cost information is available:

Budgeted production and sales	10,000 units
Direct material cost – 3 kg x \$10	\$30 per unit

Actual results for the period were as follows:

Production and sales	11,500 units
Direct material – 36,000 kg	\$342,000

The direct material price variance is

- A. \$18,000 adverse
- B. \$3,000 adverse
- C. \$3,000 favourable
- D. \$18,000 favourable

### Question 29

Y operates a standard marginal costing system. The following budgeted and standard cost information is available:

<i>Budgeted production and sales</i>	10,000 units
Direct material cost – 3 kg x \$10	\$30 per unit

*Actual results for the period were as follows:*

Production and sales	11,500 units
Direct material – 36,000 kg	\$342,000

The direct material usage variance is

- A. \$15,000 adverse

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

- B. \$14,250 adverse
- C. \$14,250 favourable
- D. \$15,000 favourable

### Question 30

Which **ONE** of the following factors could explain a favourable direct material usage variance?

- A. More staff were recruited to inspect for quality, resulting in a higher rejection rate.
- B. When estimating the standard product cost, usage of material had been set using ideal standards.
- C. The company had reduced training of production workers as part of a cost reduction exercise.
- D. The material price variance was adverse.

### Question 31

G repairs electronic calculators. The wages budget for the last period was based on a standard repair time of 24 minutes per calculator and a standard wage rate of \$10.60 per hour.

Following the end of the budget period, it was reported that:

Number of repairs	31,000
Labour rate variance	\$3,100 (A)
Labour efficiency variance	Nil

Based on the above information, the actual wage rate during the period was:

- A. \$10.35 per hour
- B. \$10.60 per hour
- C. \$10.85 per hour
- D. \$11.10 per hour

### Question 32

P operates a standard marginal costing system. The following budgeted and standard cost information is available:

<i>Budgeted production and sales</i>	10,000 units
Variable production overheads – 5 hours x \$4	\$20 per unit
<i>Actual results for the period were as follows:</i>	
Production and sales	11,500 units
Variable production overheads – 52,000 hours	\$195,000

The variable production overhead expenditure variance is

- A. \$35,000 adverse
- B. \$13,000 adverse
- C. \$13,000 favourable
- D. \$35,000 favourable

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 33

XYZ operates an integrated accounting system. The material control account at 31 March 2011 shows the following information:

Material control account			
	\$		\$
Balance b/d	50,000	Production overhead control account	10,000
Creditors	100,000	?	125,000
Bank	25,000	Balance c/d	40,000
	<u>175,000</u>		<u>175,000</u>

The \$125,000 credit entry represents the value of the transfer to the

- A. Cost of sales account
- B. Finished goods account
- C. Profit and loss account
- D. Work-in-progress account

### Question 34

R makes one product, which passes through a single process. Details of the process account for period 1 were as follows:

	\$
Material cost – 20,000 kg	26,000
Labour cost	12,000
Production overhead cost	5,700
Output	18,800 kg
Normal losses	5% of input

There was no work-in-progress at the beginning or end of the period. Process losses have no value.

The cost of the abnormal loss (to the nearest \$) is

- A. \$437
- B. \$441
- C. \$460
- D. \$465

### Question 35

In a standard cost bookkeeping system, when the actual material usage has been greater than the standard material usage, the double entry to record this is:

- A. Debit the material usage variance account, Credit the raw material control account

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

- B. Credit the material usage variance account, Debit the raw material control account
- C. Debit the material usage variance account, Credit the work-in-progress account
- D. Credit the material usage variance account, Debit the work-in-progress account

### Question 36

A company produces a single product that passes through two processes. The details for process 1 are as follows:

Materials input	20,000 kg at \$2.50 per kg
Direct labour	\$15,000
Production overheads	150% of direct labour

Normal losses are 15% of input in process 1 and without further processing any losses can be sold as scrap for \$1 per kg.

The output for the period was 18,500 kg from process 1.

There was no work-in-progress at the beginning or end of the period.

What value (to the nearest \$) will be credited to the process 1 account in respect of the normal loss?

- A. Nil
- B. \$3,000
- C. \$4,070
- D. \$5,250

### Question 37

A company has been asked to quote for a job. The company aims to make a net profit of 30% on sales. The estimated cost for the job is as follows:

Direct materials 10 kg @ £10 per kg  
Direct labour 20 hours @ £5 per hour

Variable production overheads are recovered at the rate of £2 per labour hour.  
Fixed production overheads for the company are budgeted to be £100,000 each year and are recovered on the basis of labour hours.

There are 10,000 budgeted labour hours each year. Other costs in relation to selling, distribution and administration are recovered at the rate of £50 per job.

The company quote for the job should be

- A. £572
- B. £637
- C. £700
- D. £833

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 38

A company produces a single product that passes through two processes. The details for process 1 are as follows:

Materials input	20,000 kg at \$2.50 per kg
Direct labour	\$15,000
Production overheads	150% of direct labour

Normal losses are 15% of input in process 1 and without further processing any losses can be sold as scrap for £1 per kg.

The output for the period was 18,500 kg from process 1.

There was no work-in-progress at the beginning or end of the period.

What is the value (to the nearest \$) of the output to process 2?

- A. \$88,813
- B. \$90,604
- C. \$91,956
- D. \$94,063

### Question 39

In an integrated bookkeeping system, when the actual production overheads exceed the absorbed production overheads, the accounting entries to close off the production overhead account at the end of the period would be:

- A. Debit the production overhead account and credit the work-in-progress account.
- B. Debit the work-in-progress account and credit the production overhead account.
- C. Debit the production overhead account and credit the profit and loss account.
- D. Debit the profit and loss account and credit the production overhead account.

### Question 40

In a standard cost bookkeeping system, when the actual material price exceeds the standard price, the double entry to record the difference in price is:

- A. Debit the material price variance account and credit the raw material control account
- B. Credit the material price variance account and debit the raw material control account
- C. Debit the material price variance account and credit the work-in-progress account
- D. Credit the material price variance account and debit the work-in-progress account

### Question 41

Which of the following are characteristics of service costing?

- (i) High levels of indirect costs as a proportion of total cost
- (ii) Use of composite cost units
- (iii) Use of equivalent units

- A. (i) only
- B. (ii) only

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

- C. (i) and (ii) only
- D. All of them

### Question 42

The incomplete process account relating to period 4 for a company which manufactures paper is shown below:

Process account					
	Units	\$		Units	\$
Material	4,000	16,000	Finished goods	2,750	
Labour		8,125	Normal loss	400	700
Production overhead		3,498	Work in progress	700	

There was no opening work in process (WIP). Closing WIP, consisting of 700 units, was complete as shown:

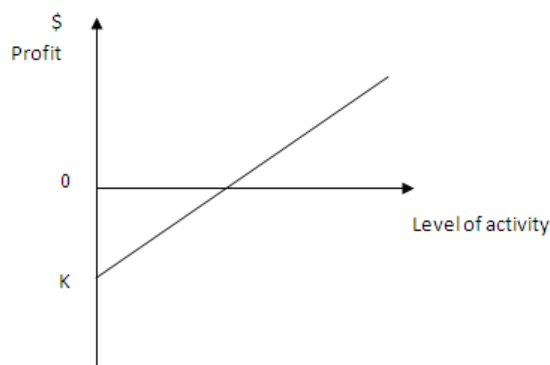
Material 100%  
Labour 50%  
Production overhead 40%

Losses are recognised at the end of the production process and are sold for \$1.75 per unit.

The total value of the units transferred to finished goods was

- A. \$21,052.50
- B. \$21,587.50
- C. \$22,122.50
- D. \$22,656.50

### Question 43



Point K on the graph indicates the value of

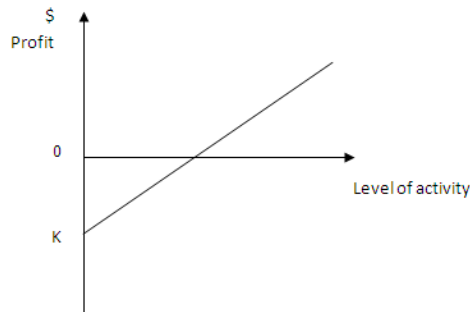
- A. Semi-variable cost
- B. Total cost
- C. Variable cost
- D. Fixed cost

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 44



This graph is known as a

- A. Conventional breakeven chart
- B. Contribution breakeven chart
- C. Semi-variable cost chart
- D. Profit volume chart

### Question 45

W Ltd makes leather purses. It has drawn up the following budget for its next financial period:

Selling price per unit \$11.60  
Variable production cost per unit \$3.40  
Sales commission 5% of selling price  
Fixed production costs \$430,500  
Fixed selling and administration costs \$198,150  
Sales 90,000 units

The margin of safety represents

- A. 5.6% of budgeted sales
- B. 8.3% of budgeted sales
- C. 11.6% of budgeted sales
- D. 14.8% of budgeted sales

### Question 46

ZK has been asked to quote a price for a special job that must be completed within one week.

The job requires a total of 100 skilled labour hours and 50 unskilled labour hours. The current employees are paid a guaranteed minimum wage of \$525 for skilled workers and \$280 for unskilled workers for a 35-hour week.

Currently, skilled labour has spare capacity amounting to 75 labour hours each week and unskilled labour has spare capacity amounting to 100 labour hours each week. Additional skilled workers and unskilled workers can be employed and paid by the hour at rates based on the wages paid to the current workers.

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

The materials required for the job are currently held in inventory at a book value of \$5,000. The materials are regularly used by ZK and the current replacement cost for the materials is \$4,500. The total scrap value of the materials is \$1,000.

What is the total relevant cost to ZK of using skilled and unskilled labour on this job?

- A. Nil
- B. \$375
- C. \$775
- D. \$1,540

### Question 47

ZK has been asked to quote a price for a special job that must be completed within one week.

The job requires a total of 100 skilled labour hours and 50 unskilled labour hours. The current employees are paid a guaranteed minimum wage of \$525 for skilled workers and \$280 for unskilled workers for a 35-hour week.

Currently, skilled labour has spare capacity amounting to 75 labour hours each week and unskilled labour has spare capacity amounting to 100 labour hours each week. Additional skilled workers and unskilled workers can be employed and paid by the hour at rates based on the wages paid to the current workers.

The materials required for the job are currently held in inventory at a book value of \$5,000. The materials are regularly used by ZK and the current replacement cost for the materials is \$4,500. The total scrap value of the materials is \$1,000.

What is the relevant cost to ZK of using the materials in inventory on this job?

- A. \$1,000
- B. \$3,500
- C. \$4,500
- D. \$5,000

### Question 48

For decision-making purposes, which of the following are relevant costs?

- (i) Avoidable cost
- (ii) Future cost
- (iii) Opportunity cost
- (iv) Differential cost

- A. (i), (ii), (iii) and (iv)
- B. (i) and (ii) only
- C. (ii) and (iii) only
- D. (i) and (iv) only



## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

### Question 49

A project requires an initial investment of \$300,000.

The following cash inflows have been estimated for the life of the project:

Year	\$
1	50,000
2	120,000
3	200,000

Using a discount rate of 8%, the net present value of the project to the nearest \$'000 is \$

Yr 0: 300,000 X 1 =	(300,000)
Yr 1: 50,000 x .926 =	46,300
Yr 2: 120,000 x .857 =	102,840
Yr 3: 200,000 x .794 =	<u>158,800</u>
	7,940 rounds to \$8,000

**Note:** Discount rates can be found within the maths tables that will be available onscreen in exam.

### Question 50

Which **THREE** of the following statements are advantages of the internal rate of return (IRR) method of investment appraisal?

- A. It is a measure of absolute profitability
- B. It considers the time value of money
- C. It is an easy to understand percentage measure
- D. It is based on accounting profits
- E. It considers the whole life of a project
- F. It is a simple measure of risk

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

**CIMA**

### C01 – Answers

Question	Answer		Question	Answer
1	C		44	D
2	B		45	B
3	D		46	B
4	B		47	C
5	A, C, F		48	A
6	B		49	\$8,000
7	D		50	BCE
8	B			
9	D			
10	D			
11	C			
12	A			
13	C			
14	A			
15	B			
16	B			
17	D			
18	C			
19	A			
20	A			
21	D			
22	B			
23	D			
24	A			
25	A			
26	B			
27	A			
28	D			
29	A			
30	D			
31	A			
32	C			
33	D			
34	C			
35	A			
36	B			
37	C			
38	C			
39	D			
40	A			
41	C			
42	B			
43	D			

# C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

## C01 – Explanations

1. External; Management accounting focuses on the business needs, therefore you should decide what management accounting is and eliminate that most obvious.
2. Stakeholders; These can include shareholders, customers, suppliers, employees or anyone that could be affected by the company internally or externally. For a more detailed explanation of management accountants [please visit the website](#).
3. None of the above; Management accountants can work in a variety of roles and also across a range of departments. To find out more about what CIMA students and members do please visit their [profiles on the global website](#)
4. Financial, Internal; Financial accounts of companies are publicly available to any stakeholders who may need to view financial accounts and are usually created annually or bi-annually. Management accounts are used internally for planning and control and are usually developed monthly.
5. **A, C, F**; for a detailed history of CIMA, students can visit the global homepage in [about us](#) section.
6. Overhead was \$25,000 under-absorbed.

Budget hrs	100,000
<u>Standard hrs</u>	<u>110,000</u>
Difference	10,000 x \$2.50 = \$25,000

7. Administration cost; it cannot be allocated under any of the other costs as audit fees are for the whole company, therefore it must be an admin cost.
8. Functions or locations for which costs are ascertained; a cost centre is a production or service location, a function, an activity or an item of equipment for which costs are accumulated e.g. canteen within a company
9. When relating overheads to end units it is difficult to relate service centre overheads due to the very nature of the name service, so attempt is made to re-apportion such cost to production centres making it eventually convenient to relate to end units, but when there are two or more service centres giving each other services (reciprocal) getting the service centre cost fully related to each production centre becomes problematic, hence a repeated distribution.
10. The cost of ingredients; Ingredients would be classified as the raw material and not a production overhead.
11. Production cost equals;

Direct Materials	\$10,650	
Direct Labour	\$3,260	
Machine Cost (140 x \$8.5)	\$1,190	
<u>Total Production Cost</u>	<u>\$15,100</u>	
Plus 60% of prime cost	\$8,346	(\$10,650+\$3,260= \$13,910x60%)

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants



**Estimated Price                      \$23,446**

12. If at higher production bonuses are paid the line should increase at a faster trajectory at higher output.
13. \$17,625;

	Patients	Cost \$
Low	(650)	(17,125)
High	1,260	18,650
	610	1,525

Obtain variable cost per patient as  $\$1,525/610 = \$2.5$  per patient  
Therefore fixed cost is  $\$17,125 - \$1,625 (\$2.50 \times 650) = \$15,500$

Variable cost for 850 patients would be  $\$2.50 \times 850 = \$2,125$   
Therefore total cost for 850 patients =  $\$17,625 (\$15,500 + \$2,125)$

14. Understand the difference between a variable and fixed cost. Variable costs will always change dependent on level of activity.
15. You need to adopt the high low method for each cost type to understand whether the cost is variable, semi-variable or fixed.

**W:**

	Units	Cost \$
	100	8,000
	140	10,560
	40	2,560

$\$2,560/40 = \$64$  per unit;  $\$8,000 - (100 \times \$64) \$6,400 = \$1,600$  fixed cost

$140 \times \$64 = \$8,960 + \$1,600 = \$10,560$ , therefore semi-variable so either answer B or D

**Y:**

	Units	Cost \$
	100	6,500
	140	9,100
	40	2,600

$\$2,600/40 = \$65$  per unit;  $\$6,500 - (100 \times \$65) \$6,500 = \$0$  fixed cost, therefore variable cost and answer is B.

**Hint:** The reason I choose to calculate Y after W as the answer could only have been B or D, you would have noticed with product X and Z the answers were the same for B and D.

16. As said previously it is important to understand the difference between a fixed and variable costs, fixed costs will always remain fixed regardless of production volume changes.

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

**CIMA**

17. Budgeted machine hours 10,960  
 Actual machine hours (10,493)  
 Variance 467

Budgeted overheads \$493,200 / budgeted machine hours of 10,960 = \$45 budgeted machine hr

467 x \$45 = \$21,015

Budgeted overheads \$493,200  
 Actual overheads \$514,157  
 Variance \$20,957

Total under-absorption = \$21,015 + \$20,957 = \$41,972

18. June sales \$100,000x15% = \$15,000  
 July sales \$150,000x20% = \$30,000  
 August sales \$130,000x60% = \$78,000 less 2% discount \$1,560 = \$76,440

Total = \$15,000 + \$30,000 + \$76,440 = \$121,440

19. A flexible budget can help managers to make more valid comparisons. It is designed to show the allowed expenditure for the actual number of units produced and sold. Comparing this flexible with the actual expenditure, it is possible to distinguish genuine efficiencies.

20.

Activity	\$ Overhead
50%	100,000
<u>75%</u>	<u>112,500</u>
25%	12,500

\$12,500/25 = \$500 increase as activity increases by 1%

Therefore an increase of 5% activity would be \$112,500 + (500x5) \$2,500 = \$115,000

21. The argument is if you are responsible for cost you will keep the target high even if you spend a lot you are still within the target, and as for revenue, keep the target lower making it easy to achieve.

22.

Product A	
Opening Inventory	5,000
Production	
Closing Inventory	6,500 (5,000+ 30% of 5,000)

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

Need sales of 70,000 units, therefore production in units is  $70,000 + 6,500 - 5,000 = 71,500$  units

### 23. Product A:

Opening inventory	5,000
Production required	
Closing inventory	6,500 (5000 + (5000 x 30%))

Sales required = 70,000 units therefore production of 71,500 units required (70,000+6,500-5,000)

Mat X requirements;

Opening inventory	50,000kgs
Production required	
Closing inventory	60,000kgs

$71,500 \text{ units} \times 5\text{gs} = 357,500\text{kgs}$

Therefore need to purchase =  $367,500\text{kgs}$  ( $357,500 + 60,000 - 50,000$ )

24. The principal budget factor can also be known as the limiting factor as this factor usually indicates which budget should be prepared first. Failure to identify the principal budgeting factor at an early stage could lead to delays at a later stage when managers realise targets that were set are not feasible.
25. Items excluded from a cash budget are book items and are non-cash related. Depreciation is a book value and has no cash value. A provision for doubtful debts is also a book transaction and does not become a cash issue until the bad debt is realised. Wages and Salaries are cash transactions.
26. Overtime premium may include time and a half, double time, or triple time pay etc
27. A standard cost is a carefully predetermined unit cost which is prepared for each cost unit. It contains details of the standard amount and price of each resource that will be utilised in providing the service or manufacturing the product.

### 28.

Budget costs	\$360,000 (36,000kgs x \$10)
Actual costs	<u>\$342,000</u>
Favourable variance	\$18,000

### 29.

Budget usage	34,500kgs (11,500 x 3kg)
Actual usage	<u>36,000kgs</u>

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

Adverse Variance  $1,500\text{kgs} \times \$10 = \$15,000$  direct material usage variance

30. By buying higher quality material than originally planned will be higher priced than expected but with high quality usage would be more efficient and effective.

31.

Calculate the actual cost based on current labour rate:

$60 \text{ mins} / 24 \text{ mins} = 2.5$  calculators fixed per hour

$31,000 / 2.5 = 12,400$  hrs worked  $\times \$10.60 = \$131,440$  budgeted cost

$(\$131,440 + \$3,100) = \underline{\$134,540}$  actual cost

$\$134,540 / 12,400 = \$10.85$  per hour

32.

Budget cost =  $52,000 \text{ hrs} \times \$4 = \$208,000$

Actual cost = \$195,000

\$13,000 favourable variance

33.

Material control A/C in credit side can indicate items used directly (which should go to WIP A/C and once completed will go to FG A/C), indirectly (should go to production overhead A/C), remaining to be used in the next period (balance c/d). So the missing item is the first explanation.

34

Normal loss =  $20,000 \times 5\% = 1,000$ , therefore expected output is 19,000 kg

Abnormal loss =  $19,000 \text{ kg} - 18,800 \text{ kg} = 200 \text{ kg}$

Abnormal cost = Total costs less scrap value/Expected output

$\frac{\$43,700 (\$26,000 + \$12,000 + \$5,700)}{19,000} = 2.3$

$200 \text{ kg} \times 2.3 = \$460$

35. This would mean there has been an adverse variance in terms of material usage, therefore you need to reduce the raw material account as you have used more than budgeted for.

36.

Normal loss =  $20,000 \text{ kg} \times 15\% = 3,000 \text{ kg} \times \$1 = \$3,000$

37.

Direct Mat =  $10 \text{ kg} \times \$10 = \$100$

Direct Lab =  $20 \text{ hrs} \times \$5 = \$100$

Var prod o/head =  $20 \text{ hrs} \times \$2 = \$40$

Fixed o/head =  $\$200 ((\$100,000 / 10,000 \text{ budgeted hrs}) \times 20 \text{ actual hrs})$

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

Other costs= \$50

Total costs \$490

Net profit is 30% of sales, therefore total costs represent 70%  
 $(\$490 \times 100)/70 = \$700$ - price to quote for job.

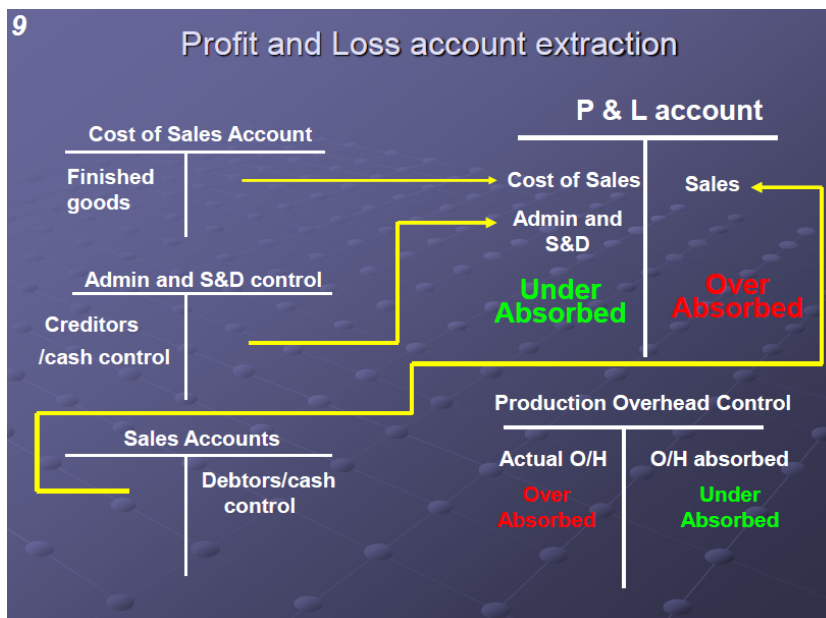
To check answer is correct; profit achieved will be \$210  $(\$700-\$490)$   $\$210/\$700= 30\%$

38. Cost per unit is calculated to decide what cost to be transferred to customers, and if there are normal losses (and anything to do with normal losses like scrap or disposal values) those are adjusted for. So the formula used is:

$$\begin{aligned} \text{Cost per unit} &= \text{Total process cost} - \text{scrap value of normal loss} / \text{input} - \text{NL} \\ &= 50000 + 15000 + 22500 / 20000 - 3000 = 4.97 \text{ approx} \end{aligned}$$

$$\text{FG value} = 18500 \times 4.97 = C$$

39. Account extraction comes from the following:



- 40.

With variances: Ledger account is kept for each variance, and whichever the type open a new account under that variance name and Debit when adverse variance / Credit when favorable variances.



## C01-Fundamentals of management accounting

And the other corresponding entries (as part of double entry): Material price variance recorded in Raw materials control account. Labour rate variance reordored in Wages control account. Quantity variances (material usage, labour efficiency and variable overhead efficiency) are recorded in Work in progress control account. Variable overhead expenditure and *Fixed O/H expenditure & volume* are usually recorded in production overhead control account.

Sales are usually recorded at actual amounts in the ledger accounts, so sales variances are not applicable.

41. Equivalent units are used in Process costing, Services more indirect cost and unit measure is generally a creative one like lecture-hours (composite cost units)

See calculations below

### Statement of Equivalent Units

		M		L		O/H	
	Output	%	Qty	%	Qty	%	Qty
FG	2,750	100	2,750	100	2,750	100	2,750
NL	400		-		-		-
WIP	700	100	700	50	350	40	280
AL	<u>150</u>	100	<u>150</u>	100	<u>150</u>	100	<u>150</u>
	4,000		3,600		3,250		3,180

42.

### Statement of Cost

Input Cost	16,000	8,125	3,498
Less: scrap sale value of NL	<u>-700</u>	<u>8,125</u>	<u>3,498</u>
Cost per Equivalent unit	4.25	2.5	1.1

### Statement of Evaluation

FG  $(4.25+2.5+1.1) \times 2,750 = 21,587.50$

WIP  $(4.25 \times 700) + (2.5 \times 350) + (1.1 \times 280) = 4,158$

AL  $(4.25+2.5+1.1) \times 150 = 1,177.50$

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

43. Even at zero units we have fixed costs without any revenue that becomes a full loss to the organisation

44. The two axis's show profit and activity/volume/units

45.

Sales =	\$11.60
Variable costs =	\$3.40
Commission =	<u>\$0.58</u>
Contribution per unit =	<u>\$7.62</u>

Fixed costs = \$430,500 + \$198,150 = \$628,650

B/E point = \$628,650/\$7.62 = 82,500 units

Margin of safety = (Budgeted sales – B/E sales) / Budgeted sales  
(90,000-82,500)/90,000 = 8.3%

46.

Skilled labour capacity = 75 hrs

Requirement = 100 hrs

Relevant cost = 25 hrs @ rate of (\$525/35hrs) = 25 hrs x \$15 = \$375

Unskilled labour is not a relevant cost as there is spare capacity.

47.

In a Relevant costing question like this, if materials are regularly used then they are to be replaced. Hence we have to purchase it from outside. The replacement cost here is 4500 which should be considered as the relevant cost for the job

(Net Book value is immaterial since decision making uses relevance concept)

(Scrap value will not be considered since this is a regularly used material)

48.

- (i) Avoidable costs are relevant because they get affected by the decision  
e.g. We are currently paying rent and for the decision of putting up our own work place this rent becomes a cost saving (Avoidable cost/relevant cost)
- (ii) Due to any decision we make if there are any costs incurred into the future, then they come under relevant costs of the decision  
(However Future committed costs are irrelevant)

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

CIMA

- e.g. The new supervisors salary for the new building is future relevant cost, However if we were to anyway recruit a new supervisor in 6 months time (future)and we were to use him in the new project then his salary becomes irrelevant because its future committed cost)
- (iii) Opportunity costs are the next best alternatives forgone due to the decision we make so we must consider them as relevant  
e.g. Currently a MA giving up his job to start up his own business  
(MA's salary is opportunity cost in this decision)
- (iv) This is another name for Incremental costs (at the moment we are paying a rent of \$6,000 and due to the expansion we have to pay \$8500 as rent differential cost of \$2500 is relevant to the decision of expanding)

49.

A project requires an initial investment of \$300,000.

The following cash inflows have been estimated for the life of the project:

Year	\$
1	50,000
2	120,000
3	200,000

Using a discount rate of 8%, the net present value of the project to the nearest \$'000 is \$

Yr 0: 300,000 X 1 =	(300,000)
Yr 1: 50,000 x .926 =	46,300
Yr 2: 120,000 x .857 =	102,840
Yr 3: 200,000 x .794 =	<u>158,800</u>
	7,940 rounds to \$8,000

**Note:** Discount rates can be found within the maths tables that will be available onscreen in exam.

50.

**B, C, E:**

- B) DCF is used to calculate NPV so that this methods believes that today's money is more worth than tomorrow's (This TVM concept is considered to be essential in long term decision making)
- C) NPV is difficult to be understood by managers but % is not. The decision criteria using IRR is that if the project's IRR is more than the COC then it should be accepted.  
If mutually exclusive projects are there then the highest MOS giving project should be chosen (MOS = IRR-COC)

## C01-Fundamentals of management accounting

Chartered Institute of  
Management Accountants

The logo for the Chartered Institute of Management Accountants (CIMA) features the acronym "CIMA" in a white, serif font, centered within a solid red rectangular box.

E) Unlike Payback which only considers the point which recovers the initial investment this is a better measure of risk which looks at the whole life of the project. (To calculate IRR we calculate NPV for the same project at 2 different COCs. So the entire project will be considered)