



COST ACCOUNTING

December 2018

Time allowed

Three hours

Instructions

- Write the question number next to each answer in your answer booklet.
- You are not required to rewrite the question in your answer booklet.
- Ensure that you pay particular attention to words in **bold**.

Information

- Different questions may carry a different number of marks.
- Marks for each question are shown in [].

Advice

- Read each question carefully before you start to answer it.
- Use the full time permitted and check all your answers.

Materials

- No other computer equipment, notes or books are permitted.
- For those exams in which numeracy skills are required:
 - a) Non-programmable calculators are permitted.
 - b) All data tables are included.



ICM

ANSWER FIVE QUESTIONS FROM SEVEN.

1. (a) Identify **three** of the assumptions behind **break-even** and **cost volume profit** analysis. [6 marks]
- (b) Explain the term '**contribution**'. [4 marks]
- (c) A company makes a single product: sale price £50.00: variable cost £10.00. Fixed costs (FC) £8000 per month. How many units need to be produced and sold to break-even? (Break-even = $\frac{\text{fixed cost}}{\text{contribution}}$) [4 marks]
- (d) What would the sales in units need to be to produce a profit of £20000? (Profit target = $\frac{\text{FC} + \text{Profit target}}{\text{Contribution}}$) [6 marks]

2. Metal Extrusions plc is about to introduce a new product to the market. The following budgeted data is provided:

	£
Direct material cost per unit	30
Direct labour cost per unit	30
Variable overhead cost per unit	50
Selling price per unit	200
Fixed overhead costs	420000

Planned production and sales 12000 units.

Maximum possible output 16000 units.

- (a) Calculate the original budgeted profit. [3 marks]
- (b) The sales manager thinks that if she was allowed to spend an extra £100000 on marketing, the company would be able to sell 14000 units at a price of £210 per unit. Calculate the profit. [4 marks]
- (c) The production manager thinks that if he implemented a cost reduction programme he could reduce direct materials by 10%; direct labour by 5%; and variable overheads by 5%. He also thinks that he could achieve a saving of £30000 on fixed overheads. Calculate the profit based on selling 12000 units at £200 each. [5 marks]
- (d) Which of the options (b) or (c) would you recommend and why? [2 marks]
- (e) Explain the basis of **activity based costing (ABC)**. [6 marks]

3. Capetown Departmental Stores has the following forecast data for the first four months of its budget cycle:

	December	January	February	March
	£	£	£	£
Sales	120000	140000	180000	160000
Purchases	70000	110000	100000	90000
Overheads	24000	24000	26000	26000
Wages	20000	21000	21000	22000

Other Information:

- 50% of sales are on a cash basis, and 50% are on a credit basis
- Debtors are given one month's credit
- Suppliers give one month's credit
- Overheads are paid one month in arrears
- Overheads include £4000 in respect of the depreciation of fixed assets
- Wages are paid in the month in which they are incurred
- New equipment costing £80000 will be paid for in January
- The sale of old equipment will bring income of £5000 in February
- An investment grant of £10000 is due in February
- The bank balance is predicted to be £18000 on January 1st 2019

- (a) Prepare a receipts schedule for the period January – March (3 months). [4 marks]
- (b) Prepare a payments schedule for the period January – March (3 months). [5 marks]
- (c) Prepare a cash budget for the period January – March (3 months). [5 marks]
- (d) Comment on the cash budget you have prepared. [6 marks]

4. Kenya Cases Ltd uses standard costing for product cost control.

The standard cost of making one unit is as follows:

Direct material 5 kilos at £6 per kilo
 Direct wages 2 hours at £16 per hour

The actual cost of a batch of 1000 units was:

Direct material £32300 (6250 kilos)
 Direct wages £32420 (1970 hours)

- (a) Calculate the following:
- The material price variance
 - The material usage variance
 - The labour rate variance
 - The labour efficiency variance
 - The total cost variance [10 marks]
- (b) Outline possible causes of the labour variances. [4 marks]
- (c) Define **uniform costing** and describe its features. [6 marks]

5. Winnie Production Ltd has three production cost centres A, B and C, and one service cost centre D which is the maintenance department. The budgeted overhead expenditure for the year ended 30 April 2018 is as follows:

		£000
Depreciation of production equipment		800
Employer's liability insurance		100
Heating and lighting		200
Indirect labour:		
Cost centre A	700	
Cost centre B	700	
Cost centre C	<u>300</u>	1700
Rent and business rates		400
Personnel and welfare		200

		3400
		=====
Other data/information is as follows:		
Value of production equipment		
Cost centre A		2000000
Cost centre B		1000000
Cost centre C		800000
Cost centre D		200000
Floor area:		
Cost centre A		50000 sq.m
Cost centre B		20000 sq.m
Cost centre C		20000 sq.m
Cost centre D		10000 sq.m
Number of employees:		
Cost centre A		40
Cost centre B		40
Cost centre C		15
Cost centre D		5

Overheads to be allocated to cost centre D amount to £135000.

The overheads of cost centre D are to be apportioned 40% to A, 40% to B, and 20% to C.

Budgeted direct labour hours:

Cost centre A	67500
Cost centre B	77500
Cost centre C	27000

(a) Prepare an overhead analysis sheet in the following format:

Overhead Cost	Cost Centre A	Cost Centre B	Cost Centre C	Cost Centre D	Total £'000	Basis of Overhead Allocation

[10 marks]

(b) Re-apportion the service department D over department A as 40%, B as 40% and C as 20%.

[4 marks]

(c) Calculate the overhead absorption rates (OAR) for production cost centres A, B and C using budgeted direct labour hours given.

[6 marks]

6. Bulawayo plc has a limited capital budget available for investment in suitable projects, and has short-listed two possible choices. Details are as follows:

	Project A	Project B
Capital cost	2200000	2300000
Expected life	5 years	5 years
Residual value	nil	nil
Budgeted cash flow:	£000	£000
Year 1	200	300
Year 2	800	900
Year 3	1400	1500
Year 4	700	600
Year 5	400	400

The cost of capital to Bulawayo is 9%

Extracts from NPV tables are as follows:

Year	8%	9%	10%
1	.926	.917	.909
2	.857	.841	.826
3	.794	.772	.751
4	.735	.708	.683
5	.630	.650	.621

(a) Calculate the payback period for **each** project.

[4 marks]

(b) Calculate the accounting rate of return for **each** project.

[4 marks]

(c) Calculate the NPV for **each** project.

[6 marks]

(d) State which project you would recommend (if any).

[2 marks]

(e) Explain the term '**post audit review**' within the context of capital investment appraisal.

[4 marks]

continued overleaf

7. (a) Describe the procedure using the FIFO (first in first out) method of issuing and valuing stocks. [6 marks]
- (b) Describe the characteristics of **JIT (Just in Time)** systems. [6 marks]
- (c) Explain the advantages and disadvantages of employee incentive schemes. [8 marks]

END OF QUESTIONS