



COST ACCOUNTING

December 2019

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 at the back of the paper if necessary.



ICM

ANSWER FIVE QUESTIONS FROM SEVEN.

1. (a) 'Limiting factor' must be identified when planning and preparing budgets. [6 marks]
 (i) Explain **limiting factor** in the context of budget preparation.
 (ii) Where shortage of labour is identified as the limiting factor, suggest **two** measures that could be taken to alleviate the limiting factor. [4 marks]
 (b) Distinguish between a **fixed budget** and a **flexible budget**, indicating the purpose of **each**. [10 marks]

2. The following budgeted information relates to a manufacturing company with **three** production departments: Cutting, Assembling and Finishing:

	£000
Power consumption	300
Business rates and building insurance	900
Heating and lighting	300
Personnel expenses	150
Repairs and maintenance of machines	225
Production Manager's expenses	450
Supervisors' salaries:	
Department – Cutting	75
Department – Assembling	60
Department – Finishing	60
Indirect materials:	
Department – Cutting	45
Department – Assembling	30
Department – Finishing	20
Depreciation of machines	375

BASIC HOURLY WAGE RATE:

All Departments £18.00 per hour

OTHER INFORMATION:

	Departments		
	Cutting	Assembling	Finishing
Floor area (sq. m)	40000	40000	20000
Machine value (£000)	750	450	300
Number of employees	100	50	50
Power consumption	50%	30%	20%
Direct labour hours	67500	45000	65000

TASKS

- (a) Prepare an overhead analysis table in the format suggested below:

OVERHEAD	Cost centre CUTTING £	Cost centre ASSEMBLING £	Cost centre FINISHING £	TOTAL £'000	BASIS of overhead allocation

[10 marks]

- (b) Calculate the overhead absorption rates (using direct labour hours method) for **each** of the **three** departments: Cutting, Assembling and Finishing.

[6 marks]

- (c) A product uses £288.00 of material (direct cost) and takes 2 hours in each of the three departments to make. Calculate the total production cost of the product showing direct cost, labour and overhead costs.

[4 marks]

3. As management accountant of Omega Investments, you are required to advise the directors which of the following projects you would recommend:

The following data applies:

Project	Alpha	Beta
Original investment	2500000	2700000
Net cash flows from the investments are:		
Year 1	600000	500000
Year 2	900000	800000
Year 3	900000	1100000
Year 4	600000	700000
Year 5	200000	300000
Year 6	100000	200000
The firm's average cost of capital is 10%.		
Discount factors	8%	10%
Future years:		
1	.926	.909
2	.857	.826
3	.794	.751
4	.735	.683
5	.681	.650
6	.630	.564

TASKS

- (a) Calculate the payback period, for both projects.
- (b) Calculate the accounting rate of return, for both projects.
- (c) Calculate the net present value (NPV), for both projects.
- (d) State which project should be recommended and the reason why.

[4 marks]

[4 marks]

[8 marks]

[4 marks]

4. (a) Give **two** reasons why it is important to value stocks accurately. [8 marks]
 (b) Explain how stocks can be valued using the Average Cost Method (AVCO). [6 marks]
 (c) Discuss when the Last-In, First-Out (LIFO) method of stock valuation might be used. [6 marks]

5. Innova plc has the following first draft budgeted data in respect of a new product which is being 'brought to the market' next year:

Production/sales (units)	50000
Variable costs per unit:	
Direct labour	£30
Direct material	£30
Overheads	£40
Suggested selling price per unit	£140

Fixed costs to be absorbed by the product are estimated to be £1000000.

Maximum production level is 70000 units.

TASKS

- (a) (i) Calculate the contribution per unit and [4 marks]
 (ii) the total budgeted profit based on the first draft budget [2 marks]
 (b) Calculate the budgeted break-even point, based on the first draft budget. [4 marks]
 (c) Calculate what the profit would be if the selling price was reduced to £130 per unit, and 70000 units were made and sold. [4 marks]
 (d) Calculate what the profit would be if the selling price was increased to £150 per unit, and 45000 units were made and sold. [4 marks]
 (e) There has been a strong suggestion that there would be a high demand for an improved product. Research has indicated that this would increase the total variable cost per unit by 20% but that the selling price could be increased to £180 per unit, and that 50000 units could be sold. Calculate what the profit would be. [6 marks]

6. Atcost plc is a manufacturing company which uses a standard costing system to control production costs. The standard costs for a product are as follows:

Materials – 6 kilos at a standard cost of £7 per kilo

Labour – Grade A – 4 hours at a standard cost of £18 per hour

Labour – Grade B – 8 hours at a standard cost of £10 per hour

The actual cost of a batch of 100 products has been recorded as follows:

Materials – 640 kilos at a cost of £4400

Skilled labour – 450 hours at a cost of £6750

Unskilled labour – 760 hours at a cost of £7600

TASKS

- (a) Calculate the following:

- | | |
|---|-----------|
| (i) The material price and usage variances | [4 marks] |
| (ii) The labour rate and efficiency variances (skilled labour) | [4 marks] |
| (iii) The labour rate and efficiency variances (unskilled labour) | [4 marks] |
| (iv) The total cost variance | [2 marks] |

In **each** case indicate whether the variance is **favourable** or **adverse**.

- (b) Describe what information you would expect to find on a 'standard cost card'. [6 marks]

7. (a) (i) Explain the nature of **contract costing**. [6 marks]
- (ii) Suggest **three** typical debit/credit entries that may be found in a Contract Account. [6 marks]
- (b) Distinguish between **joint products** and **by-products**, giving examples of both. [8 marks]

END OF QUESTIONS