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# COST ACCOUNTING

September 2021

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## 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

- Notes or books are not permitted.
- Non-programmable calculators are permitted.



ICM

**ANSWER ANY FIVE QUESTIONS FROM THE FOLLOWING SEVEN QUESTIONS**

1. (a) Explain what is meant by the terms classification of costs and cost coding. Use examples of each to support your explanation. [10 marks]
- (b) Explain the difference between cost allocation and cost apportionment. Use examples to support your explanation. [10 marks]

2. Traders plc record the following stock movements of a new stock item called Jiffy:

**Jiffy stock movements**

Date	Receipts (units)	Issues (units)
02 April	2,400 at £8 each	
06 April	3,600 at £9 each	
12 April	4,000 at £10 each	
17 April		7,000
24 April	4,000 at £10.50 each	
27 April		5,000

**Note:**

There was no opening stock

- (a) Prepare new stock cards for stock item Jiffy. You must show the value of each of the **two** issues and the value of closing stock using each of the following stock pricing/valuation methods:
- (i) FIFO [6 marks]
- (ii) AVCO [6 marks]
- (b) Explain the difference between perpetual inventory and continuous stocktaking. [8 marks]
3. A manufacturing company makes three products (x, y and z) from one basic raw material. Due to a shortage of raw material next year's budget estimates are as follows:

Product	x	y	z
Maximum possible sales in units	16,000	12,000	21,000
<b>Variable costs per unit:</b>			
Direct material	£45	£48	£44
Direct labour	£15	£16	£16
Variable overheads	£60	£53	£45
Selling price per unit	£180	£190	£175

**Note:**

- Maximum amount of raw material available will be £1,950,000
- Total fixed costs for the year amount to £446,000

Calculate each of the following, showing all your workings:

- (a) The contribution to be earned by each of the products next year. [3 marks]
- (b) The contribution to be earned by each product based on direct materials ranked in order, e.g. 1, 2, 3. [6 marks]
- (c) The raw material cost for x, y and z based on the maximum available material of £1,950,000 and the rankings you calculated in part (b). [5 marks]
- (d) The maximum estimated profit the company can earn next year. [6 marks]



4. The standard cost of making one unit is as follows:

Direct material	4 kilos at £7 per kilo
Direct wages	5 hours at £10 per hour
<b>The actual cost of a batch of 1,000 units was:</b>	
Direct material	£28,960 (4,328 kilos)
Direct wages	£50,200 (5,370 hours)

- (a) Calculate each of the following:
- (i) The material price variance [2 marks]
  - (ii) The material usage variance [2 marks]
  - (iii) The total material cost variance [1 mark]
  - (iv) The labour rate variance [2 marks]
  - (v) The labour efficiency variance [2 marks]
  - (vi) The total labour cost variance [1 mark]
  - (vii) The total cost variance [2 marks]
- (b) Explain the possible causes of the labour rate and labour efficiency variances. [4 marks]
- (c) Explain the purpose of variance analysis. [4 marks]

5. The following information relates to a manufacturing company:

Overhead Expense		£000
Business Rates		1,600
Repairs and Maintenance – Machines		300
Depreciation		600
Power Sources		350
Heat and Light		200
Production Manager's Salary:		
Dept A = £30k, Dept B = £30k, Dept C = £45k		105
Supervisor's Salaries:	Dept A	50
	Dept B	60
	Dept C	40

**Other Information:**

- Value of machines: A = £1,500, B = £1,000 and C = £500
- Floor area square metres: A = 15,000, B = 15,000 and C = 10,000
- Machine hours to be worked: Dept A = 522,000, Dept B = 58,250, Dept C = 41,750
- Power is allocated over departments on Unit Usage record: Dept A = 10,000 units, B = 10,000 units and C = 15,000 units
- Cost: £10.00 per unit

- (a) Prepare an Overhead Cost Analysis. You must copy and complete the following table in your answer booklet:

Overhead Expense	Dept A '000	Dept B '000	Dept C '000	Total Expenditure	Basis of Apportionment
Business Rates				1,600	

- (b) Calculate the direct hourly overhead absorption rates for each of the three departments/cost. [6 marks]
- (c) Explain the advantages of Activity-Based Costing (ABC) in comparison with traditional absorption costing. [5 marks]

6. A plc has capital available for investment this year in the following projects:

	Project X	Project Y
Capital cost	£2,300,000	£2,300,000
Expected life	5 years	5 years
Residual value	nil	nil
<b>Budgeted cash inflows:</b>	<b>£000</b>	<b>£000</b>
Year 1	700	800
Year 2	1,000	1,100
Year 3	1,200	1,300
Year 4	800	700
Year 5	300	400

**Note:**

The cost of capital to this plc is 10%

Extracts from NPV tables are as follows:

Year	8%	10%	12%
1	0.926	0.909	0.893
2	0.857	0.826	0.797
3	0.794	0.751	0.712
4	0.735	0.683	0.636
5	0.681	0.621	0.567

- (a) Calculate the payback period for each project. [2 marks]
- (b) Calculate the accounting rate of return for each project. [4 marks]
- (c) Calculate the NPV for each project. [8 marks]
- (d) Suggest the project you would recommend to the plc and justify your choice. [2 marks]
- (e) Explain **two** reasons why it is important to monitor a capital project. [4 marks]
7. (a) Explain the nature and benefits of Zero-Based Budgeting (ZBB). [8 marks]
- (b) Explain what is meant by target costing. [6 marks]
- (c) Explain the nature of uniform costing. Use examples of where this type of costing is used to support your explanation. [6 marks]

**END OF QUESTIONS**