

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTANCY

PROGRAMMES:

Bachelor of Accountancy (Honours) Degree

BBS (Hons) Banking and Finance

B.Com (Hons) Financial Intelligence

COURSE: COST AND MANAGEMENT ACCOUNTING 1 (AC108)

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES:

- 1. Answer all questions.**
- 2. No cell phones are allowed in the examination venue.**
- 3. Use of silent and non-programmable calculators is allowed**

Question 1

(a)

Beta is a product manufactured from three raw materials: M, N and Q. Each unit of Beta requires 10 kg, 8kg and 6 kg of M, N and Q respectively. The reorder levels of M and N are 15,000kg and 10,000 kg respectively, while the minimum level of Q is 2,500kg. The weekly production of Beta varies from 300 to 500 units, while the weekly average production is 400 units.

The following additional data is supplied:	M	N	Q
Reorder quantity (in kg)	20,000	15,000	20,000
Delivery (in weeks):			
Minimum	2	4	3
Average	3	5	4
Maximum	4	6	5

Required:

Clearly stating the formula, calculate:

- (i) The minimum stock level of M **(4 marks)**
- (ii) The maximum stock level of N **(4 marks)**
- (iii) The Reorder level of Q **(4 marks)**

(b)

A tool manufacturing company produces a range of small tools for drilling. The tools are sold in composite sets only. The sets are packed in a special plastic storage box which is outsourced from another company. The information and data below relates to the storage box:

Estimated usage for the forthcoming year 1,000 boxes;

Basic purchase price per box \$100;

Delivery charges per order \$200;

Storage cost per box per year is \$10.

The company is trying to decide the size of order to place with the supplier of the storage boxes and is considering sizes of 50; 100; 200; 250; 500 and 1,000 boxes.

Required:

With the help of a table, identify the optimum order size of the boxes.

(13 marks)

[Total 25 marks]

Question 2

(a)

Croco Converters has two production departments X and Y and three service departments Time-keeping, Stores and Maintenance.

Time-keeping renders services to two production departments and two other service departments, Stores department renders services to Maintenance department along with the production departments and the Maintenance department renders service to production departments only. The following information is available to you:

Production departments' overheads:	\$	Total (\$)
X	32,000	
Y	<u>20,000</u>	52,000
Service departments overheads:		
Time-keeping	8,000	
Stores	10,000	
Maintenance	<u>6,000</u>	24,000

Other information:

	X	Y	Time-keeping	Stores	Maintenance
Number of employees	40	30	20	16	10
Number of stores requisitions	24	20	-	-	6
Number of Machine hours	2,400	1,600	-	-	-

Required:

- (i) Prepare an overhead analysis sheet for Croco Converters. **(10 marks)**
- (ii) Calculate a suitable overhead absorption rate. **(2 marks)**

(b)

A Ltd, a manufacturing company, uses predetermined rates for absorbing overheads based on the budgeted level of activity. A rate of \$22 per labour hour has been calculated for the

Assembly department for which the following overhead expenditure at various activity levels have been estimated:

Number of labour hours	Total overhead (\$)
29,000	677,750
31,000	695,250
33,000	712,750

Required:

- (i) Calculate the variable overhead absorption rate per labour hour (3 marks)
- (ii) Calculate the estimated total fixed overheads (2 marks)
- (iii) Calculate the budgeted level of activity in labour hours (4 marks)
- (iv) Calculate the amount of under/over recovery of overheads if the actual labour hours were 31,700 and actual overheads were \$710,100. (3 marks)

(c)

Indicate an appropriate basis of apportionment of the following overheads:

- (i) Maintenance department (1 mark)
- (ii) Purchases department (1 mark)
- (iii) Welfare and recreation room expenses (1 mark)
- (iv) Building service department (1 mark)
- (v) Overhead crane service (1 mark)
- (vi) Personnel department (1 mark)

[Total 30 marks]

Question 3

Mashava (Pvt) Ltd has a single process in its manufacture of a product and material is introduced at the start of the process. The completed units of the process are immediately transferred to finished goods inventory. Data for the month of June 2013 include the following:

Opening work in progress	:12,000 units
60% converted, consisting of materials	: \$144,000
and conversion cost	:\$91,800.

Units started during the month	: 32,000 units
Closing work in progress 75% complete	: 8,000 units

Material costs added during the month	: \$384,000
and conversion costs added during the month	: \$450,000

Mashava (Pvt) Ltd uses the weighted average cost method to value inventories.

Required:

- (a) Calculate the cost per equivalent unit. **(10 marks)**
- (b) Determine the value of closing work in progress and closing inventory. **(5 marks)**
- (c) Show the process account. **(5 marks)**

[Total 20 marks]

Question 4

Dexter is paid by differential piecework. The scheme is as follows:

up to 50 units per day 50c per unit;

51-70 units per day 60c per unit;

71-80 units per day 65c per unit;

81-100 units per day 70c per unit.

Dexter's outputs for a five day week were 68 units, 83 units, 59 units, 94 units and 47 units.

Required:

- (a) Calculate Dexter's net pay for the week given that the only deductions are pension at 7,5% of gross pay, and flat tax rate of 20%. **(5 marks)**
- (b) Discuss piece rate remuneration and cite instances where it is appropriate. **(10 marks)**

[Total 15 marks]

Question 5

(a) Classify each of the following as either product costs or period cost in a manufacturing company and give a reason for your answer :

1. Lubricant used for maintenance of machines.
2. Hire charges for equipment used in manufacturing process.
3. Factory supervisors' salaries.
4. Salary paid to the driver of the sales manager's car.
5. Liquid soap used by the factory workers at the end of a shift to wash their hands.
6. Salaries of the security staff of the factory.
7. Depreciation of sales manager's car.
8. Depreciation of utensils used in the factory canteen
9. Group insurance premium of factory workers
10. Sales promotion expenses

[10 marks]

End of Paper