

- 3 Aluko Limited manufactures three products for the automobile industry, BS100, BS200 and BS300.

The business is divided into four departments – machining, assembly, stores and canteen.

The following information is available for one unit of the three products.

	BS100	BS200	BS300
Direct materials	\$12.60	\$14.10	\$18.80
Direct labour hours – machining (\$7.80 per hour)	30 minutes	50 minutes	55 minutes
Direct labour hours – assembly (\$6.30 per hour)	10 minutes	12 minutes	15 minutes
Machine hours – machining	20 minutes	30 minutes	30 minutes
Machine hours – assembly	5 minutes	5 minutes	10 minutes

The total estimated overhead costs for the year ended 30 June 2015 are as follows:

	\$
Indirect wages	232 000
Machinery maintenance	94 000
Machinery insurance	9 020
Rent and rates	49 600
Buildings insurance	12 800
Machinery depreciation	26 600

The following information is also available.

	Machining	Assembly	Stores	Canteen
Number of indirect employees	8	16	4	2
Floor area (sq metres)	8 000	9 000	2 000	1 000
Value of machinery (\$000)	290	120		
Number of orders from stores	6 300	1 300		
Budgeted labour hours	7 720	28 600		
Budgeted machine hours	46 400	3 200		
of canteen	30%	55%	15%	

REQUIRED

- (a) Apportion the costs to the four departments and re-apportion the service departments' costs to production departments using a suitable basis.

	Total \$	Machining \$	Assembly \$	Stores \$	Canteen \$
Indirect wages					
Machinery maintenance					
Machinery insurance					
Rent and rates					
Buildings insurance					
Machinery depreciation					
Reapportionment of canteen					
Reapportionment of stores					

[8]

- (b) Calculate appropriate absorption rates for **each** production department correct to **two** decimal places.

[4]

[4]

Additional information

The actual results for the year were as follows:

	Machining	Assembly
Factory overheads	\$239 110	\$192 860
Direct labour hours	8 420	28 150
Direct machine hours	49 120	3 050

REQUIRED

(c) Calculate the under or over absorption of overheads for each production department.

	Machining \$	Assembly \$

[4]

(d) Explain the reason for the over or under absorption of overheads calculated for **each** production department in part (c).

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Additional information

Aluko Limited has been asked to prepare a quotation for a customer requiring 250 units of BS200. The company requires a 35% gross profit on **each** order.

REQUIRED

(e) Calculate the quoted selling price.

	\$

[6]

(f) Explain the following terms in relation to overheads.

1 Allocation

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2 Apportionment

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3 Absorption

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