

- 4 Anna has a manufacturing business with two production departments and two service departments. She makes circuit boards for electronic games using batch costing.

**REQUIRED**

(a) Explain what is meant by ‘batch costing’.

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**Additional information**

The following budgeted annual data for Anna is available:

	Production departments		Service departments	
	Assembly	Machining	Stores	Canteen
Overheads	\$36 000	\$50 000	\$6 250	\$2 500
Direct labour hours	6 000	3 500	–	–
Machine hours	2 500	5 500	–	–

The following information is also available:

	Assembly	Machining	Stores
Number of orders	800	1200	–
of canteen	65%	25%	10%

## REQUIRED

- (b)** Re-apportion the service departments' costs to the production departments using a suitable basis for each.

	Assembly \$	Machining \$	Stores \$	Canteen \$
Allocated overheads	36 000	50 000	6250	2500
Re-apportionment of canteen				
Subtotal				
Re-apportionment of stores				
Total				

[3]

- (c) Calculate a suitable overhead absorption rate for **each** production department to **two** decimal places.

[4]

[4]

### Additional information

A typical order for a batch of 1000 circuit boards requires the following:

Direct materials	\$48 000
Direct labour	
Assembly department	500 hours at \$12 per hour
Machining department	300 hours at \$8 per hour
Machine hours	
Assembly department	210 hours
Machining department	500 hours
Selling and administration costs	\$7000

## REQUIRED

- (d)** Calculate, to **two** decimal places, the total cost per circuit board based on a batch of 1000 units.

[6]

**Additional information**

Sally, a customer, asked for a quote for an order for 75 circuit boards. Anna calculates the selling price to give a profit margin of 60%.

**REQUIRED**

(e) Prepare a quote showing the total selling price.

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**Additional information**

Sally considered the quoted price and has asked for a discount of 5%.

**REQUIRED**

(f) Advise Anna whether or not she should allow Sally the discount. Justify your answer.

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### Additional information

Anna has recently opened another factory making cases for the electronic games. She is considering closing this factory as she believes it is unprofitable.

The following estimated data is available based on orders for the next six months:

Per unit	\$
Selling price	12
Variable costs	5
Total fixed costs	21 000
Estimated demand	2800 units

### REQUIRED

(g) Calculate the break-even point in units.

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