Marginal and Absorption costing Income Statement

Q1. Redwood Manufacturing Ltd started in business on 1 January 2008 to manufacture furniture to customers' special requirements. The following information is available for its first three years in business.

	2008	**2009**	**2010**
	$	$	$
Fixed Costs	60 000	66 000	70 000
Direct materials (per unit)	15	15	16
Direct labour (per unit)	8	9	9
Variable overheads (per unit)	4	6	7
Selling price (per unit)	40	44	46

The production and sales quantities during the period were:

	2008	2009	2010
Production (units)	15 000	12 000	16 000
Sales (units)	12 000	13 000	16 000

All inventory has been valued using FIFO.

REQUIRED

(a) Prepare a statement showing the gross profit for **each** of the **three** years if the company used

(i) marginal costing principles to valuing inventory (stock);

(ii) absorption costing principles to valuing inventory (stock).

(b) Prepare a statement to reconcile the amounts of profit for **each** of the **three** years calculated under **both** marginal costing and absorption costing principles.

Q2. Largos Ltd also operates a factory which manufactures and sells underwater cameras.

The following details **per unit** are available for the quarter ended 30 April 2011.

	$
Sales price	700
Variable costs	400
Fixed production overhead	100

Fixed production overhead is absorbed on forecast production of 40 cameras per month.

Actual production and sales (units)

	February	March	April
Sales	30	40	45
Inventory at start of month	10	0	5
Inventory at end of month	0	5	10

REQUIRED

(d) Prepare an income statement to show the profit or loss in **each** month using marginal costing.

(e) Prepare an income statement to show the profit or loss in **each** month using absorption costing.

Q3. Poynder and Park plan to manufacture a new product for use in the underwater construction industry. This product will be sold for $34.00 per unit.

The following are the unit costs of the product:

Direct Materials
1 waterproof container $1.00
Chemical P 3 kilograms at $1.00 per kilogram
Chemical Q 4 kilograms at $1.75 per kilogram

Direct labour
15 minutes at $8 per hour

Variable factory overhead
Absorbed at $14.00 per direct labour hour.

Fixed factory overhead
$3040 for the 6 months ended 30 June 2011. To be absorbed at a rate per unit.

Expected production and sales for the 6 months ended 30 June 2011 are:

	January	February	March	April	May	June
Production (units)	50	50	60	60	80	80
Sales (units)	40	45	60	70	75	75

Additional costs will be:

Sales commission per unit sold	$1.00
Fixed administrative costs	$2500 per annum

REQUIRED

(a) Prepare a detailed forecast income statement (profit and loss account) for the six months ended 30 June 2011, using **marginal** costing.

(b) Prepare a detailed forecast income statement (profit and loss account) for the six months ended 30 June 2011, using **absorption** costing.

(c) Prepare a statement to reconcile the profit in **(a)** with the profit in **(b)**.

Q4. Ken owns a manufacturing business which makes a single product. The following figures apply for all relevant periods.

Per unit	$
Selling price	35
Direct material	9
Direct labour	11
Fixed manufacturing overheads	5

Fixed manufacturing overheads are absorbed into product costs at pre-determined rates per unit of output. Under- or over-absorbed manufacturing overheads are transferred to profit and loss in the period in which they occur.

Normal production is 80 000 units per accounting period.

The following information has been acquired for the last three accounting periods.

Three months ended	28 February	31 May	31 August
	Units	Units	Units
Sales	60 000	80 000	45 000
Stock at start of period	15 000	0	35 000
Stock at end of period	0	35 000	20 000

(b) Calculate the profit or loss in **each** period using marginal costing.

(c) Calculate the profit or loss in **each** period using absorption costing.

(d) Prepare a financial statement that reconciles your profit using marginal costing with your profit using absorption costing.

Q5. Gerry Hatrick Ltd manufactures and sells video cameras. The unit selling price and production costs are as follows:

	$
Selling price	800
Direct materials	100
Direct labour	90
Variable overheads	50
Fixed overheads	160

The fixed production overheads assume a monthly production of 2000 units.

The following monthly costs are also incurred:

Fixed administrative overheads	$80 000
Variable sales overheads	10% of sales value
Fixed sales overheads	$120 000

During the month of September 2005 a total of 2400 units were produced, of which 1800 were sold. There was no stock on hand at the beginning of September.

(a) Prepare profit statements for September 2005 using

(i) Absorption costing **(ii)** Marginal costing

(b) Explain why the profit found when using absorption costing differs from the profit found in marginal costing.

Q6. Colebrook Limited manufactures one product. The following information is available.

Direct material	$3.20 per unit
Direct labour	$2.40 per unit
Selling price	$14.00 per unit
Budgeted fixed overhead	$88 000 per month
Budgeted production	16 000 units per month

The following information is available for February and March 2015.

	February	March
Actual sales (units)	13 000	17 000
Actual production (units)	15 000	15 000

There was no inventory of finished units at 1 February 2015. The actual fixed overhead cost was the same as the budgeted cost.

REQUIRED

(a) Calculate the contribution per unit.

(b) Prepare the income statement for **each** of the months February and March 2015 using marginal costing.

Additional information

Colebrook Limited is considering changing to absorption costing.

(c) Calculate the overhead absorption rate per unit produced.

(d) Prepare the income statement for **each** of the months February and March 2015 using absorption costing.

(e) Prepare a statement reconciling the marginal costing profit with the absorption costing profit for February **only.**

(f) Explain why there is a difference in the profit between the two methods.

Q7. KC Global Limited provides the following budgeted information.

	January 2015	February 2015
Production	10 000 units	10 000 units
Sales	7 000 units	13 000 units
Production costs per unit:		
Direct materials	$4.50	$4.50
Direct labour	$6.00	$6.00
Variable overheads	$2.50	$2.50

Additional information

1. The budgeted selling price per unit is $17.
2. Budgeted production for the year is 120 000 units spread equally over the year.
3. There is no opening inventory at 1 January 2015.
4. Annual fixed overheads are budgeted to be $324 000.
5. Fixed overheads are absorbed on a unit basis.

REQUIRED

(a) Calculate the monthly breakeven point in units.

(b) Prepare forecast profit statements for January and February 2015 using absorption costing.

(c) Prepare forecast profit statements for January and February 2015 using marginal costing.

(d) Prepare a reconciliation statement showing the difference between the absorption costing profit and the marginal costing profit for January and February 2015.

(e) Explain why the absorption costing statement produces a different profit figure to the marginal costing statement.

Additional information

The directors of KC Global Limited are considering an advertising campaign starting in January 2015. This will cost $60 000 spread evenly over the year. The volume of sales and production would both increase by 10%.

REQUIRED

(f) Prepare a revised profit statement for January 2015, using absorption costing.

(g) State **three** situations where marginal costing would help in making a short term decision.

(h) Evaluate the limitations of marginal costing.