

GRADE 12 WEEK 23 to 25	LESSON 71 -82
-----------------------------------	--------------------------

MANUFACTURING

INDEX ON MANUFACTURING

Lesson no	Details of Sub topics
71	Revision Grade 11 – cost concepts
72	Revision Grade 11 – cost calculations
73	Revision grade 11 – ledger accounts
74	Analysis of Ledger accounts
75	Internal control and Ethics
76	Production cost statement
77	Short form of Income Statement
78	Cost calculations and analysis
79	Analysis of production cost statement
80	Analysis of production cost statement
81	Analysis of production cost statement
82	Class test

MANUFACTURING

CONCEPTS AND REVISION

Manufacturing business	<p><u>A trading enterprise</u> is an enterprise that buys and sells manufactured products at a profit. In a trading enterprise we talk about purchased and sold trading stock.</p> <p><u>A service enterprise</u> is an enterprise where persons use their skills to provide a service to the community.</p> <p><u>A manufacturing</u> enterprise is an enterprise that manufactures products (completed products) from raw materials. (It transforms raw materials into finished or completed products. It important to remember that after the product is manufactured it then has to be sold.)</p>
Costing	It is the calculation of the costs involved in producing a product
Unit	The word used to describe a single product made in the factory
Direct material costs	The raw material actually needed to make the product – also called Direct raw material cost
Indirect material costs	These are materials that are not directly involved with the manufacturing of the product (e.g. cleaning material costs, packing materials)
Direct labour costs	This is the amount paid to workers who actually manufacture the product
Indirect labour costs	This is the amount paid to workers in the factory who are not directly involved with the making of the product e.g. the cleaning staff)
Factory overheads	These are the expenses to run the factory, but none of them are directly involved with the making of the product. (e.g. factory rent) Indirect labour and indirect materials are treated as part of factory overheads
Primary production cost	Direct material cost plus direct labour cost
Total production cost or manufacturing costs	It is the total cost to produce the products. Prime cost plus factory overhead cost (Direct material cost + Direct labour cost + Factory overhead cost)

Cost per unit (unit cost)	This is the cost of producing one product/unit (Total production cost ÷ total units produced)
Fixed costs	These costs do not change even if the quantities produced by the factory increase or decrease (e.g. rent)
Variable costs	These costs increase when the factory produce more products and decrease when the factory produce less products (e.g. electricity)
Total costs	Fixed costs + Variable costs
Unit costs	This is the cost to produce one unit
Marginal income (contribution)	The difference between the selling price per unit and the variable cost per unit. (SP/unit – VC/unit) It is used to work out the break-even point.
Mark-up	The profit made on the goods produced
Selling price	The price that products are sold for
Break-even point	It is the number of units that need to be sold to cover all costs, but no profit is made. It is where total receipts are equal to total costs. It is the point where there is no profit and no loss. The break-even point can be calculated in units as well as rand value
Work-in-process stock	Work-in-process is the same as incomplete products. It is the cost of the work not yet finished at the end of the year and not ready to be sold. It will be finished in the next financial period.
Finished goods (Completed products)	Completed goods are units that are 100% complete. These units are ready to be sold.
Selling and distribution cost	These are costs which are incurred in the selling of the finished goods (e.g. advertising, sales commission). These are variable costs.
Administration cost	This is the cost of running the office where the administration and accounting is done.

ACTIVITY 1

COST ONCEPTS

Match the different costs in column A with the definition in column B. You are only required to write down the letters 1.G, 2. J

COLUMN A		COLUMN B
COSTS CONCEPTS		DEFINITION
Direct material	A	Labour used in the factory but not involved in the manufacture of the goods
Indirect material	B	Other expenses incurred by the factory other than direct costs.
Direct labour	C	Cost of one item produced
Indirect labour	D	Costs that vary in proportion to the amount of goods produced.
Prime cost	E	The price that the items are sold for.
Factory overheads	F	Materials that are used in the manufacturing process but do not form part of the product.
Fixed costs	G	The profit made on the goods produced
Variable costs	H	Total direct costs
Total cost of production	I	Includes all costs involved in the production
Unit cost	J	Material that forms part of the item produced
Mark-up	K	Costs that remain constant irrespective of the amount produced
Selling price	L	Labour directly involved in the manufacture of goods

ANSWER

No.	COLUMN A	COLUMN B
1	Direct material	
2	Indirect material	
3	Direct labour	
4	Indirect labour	
5	Prime cost	
6	Factory overheads	
7	Fixed costs	
8	Variable costs	
9	Total cost of production	
10	Unit cost	
11	Mark-up	
12	Selling price	

QUESTION 2a

Downloaded from Stanmorephysics.com

PRODUCTION COSTS

Make a cross to indicate which items can be regarded as direct costs/Indirect costs/Not part of production costs.

	Cost item	Production Costs		Not part of production costs
		Direct costs	Indirect costs	
1	Rent of factory			
2	Wages of cleaners			
3	Wages of employees using tools working on the product.			
4	Insurance of the equipment in the factory plant.			
5	Maintenance of the factory buildings.			
6	Cost of raw materials included in the finished products.			
7	Administrative costs.			
8	Marketing costs			
9	Depreciation on factory equipment.			
10	Consumables issued to the factory			

ACTIVITY 2b

CALCULATIONS OF BREAK-EVEN POINT

INFORMATION

Information from Donna Soap Shop for June 2014.

Number of units produced	600
Total fixed costs	R14 400
Total variable costs	R10 800
Fixed cost per unit	R24
Variable cost per unit	R18
Selling price per unit	R50
Total cost	R25 200
Total cost per unit	R42

REQUIRED

- 1 Calculate the break-even point in units
- 2 Calculate the break-even point in sales value

ANSWER

Calculate the break-even point in units	Calculate the break-even point in sales value

ANSWERS GRADE 12**LESSON
71****ACTIVITY 1**

	COLUMN A		COLUMN B
	Direct material	J	Material that forms part of the item produced
	Indirect material	F	Materials that are used in the manufacturing process but do not form part of the product.
	Direct labour	L	Labour directly involved in the manufacture of goods
	Indirect labour	A	Labour used in the factory but not involved in the manufacture of the goods
	Prime cost	H	Total direct costs
	Factory overheads	B	Other expenses incurred by the factory other than direct.
	Fixed costs	K	Costs that remain constant irrespective of the amount produced
	Variable costs	D	Costs that vary in proportion to the amount of goods produced.
	Total cost of production	I	Includes all costs involved in the production
	Unit cost	C	Cost of one item produced
	Mark-up	G	The profit made on the goods produced
	Selling price	E	The price that the items are sold for.

ACTIVITY 2A

	Cost item	Production Costs		Not part of production costs
		Direct costs	Indirect costs	
1	Rent of factory		x	
2	Wages of cleaners		x	
3	Wages of employees using tools working on the product.	x		
4	Insurance of the equipment in the factory plant.		x	
5	Maintenance of the factory buildings.		x	
6	Cost of raw materials included in the finished products.	x		
7	Administrative costs.			
8	Marketing costs			
9	Depreciation on factory equipment.		x	
10	Consumables issued to the factory		x	

ACTIVITY 2B

Calculate the break-even point in units	Calculate the break-even point in sales value
$\frac{\text{Total fixed costs}}{\text{Marginal income per unit}}$ $= \frac{\text{Total fixed cost}}{\text{Selling price per unit} - \text{Variable cost per unit}}$ $= \frac{\text{R14 400}}{\text{R50} - \text{R18}}$ $= \frac{\text{R14 400}}{\text{R32}}$ $= 450 \text{ units}$	<p>Break-even point in units x selling price per unit</p> $= 450 \text{ units} \times \text{R50}$ $= \text{R22 500}$