

Cost Classification

Chartered Accountancy Business Level 2 BL6 - Management Accounting (MA)

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B.Sc. (Finance) USJ (UG), MAAT (Prize Winner), CASL (Passed Finalist)



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BUSINESS LEVEL II MANAGEMENT ACCOUNTING

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02. Cost Classification



Cost Classification By Nature

Material Cost

Labour Cost

Other Cost



Material Cost

❑ The Cost incurred when we are purchasing and storing the materials.

Example: Raw Material

Consumption Material

Maintenance Material

Packing Material



Labour Cost

❑ The cost of labor is the sum of all wages paid to employees, as well as the cost of employee benefits and payroll taxes paid by an employer.

Example: Salary & Wages

Bonus

Over time



Other Cost

□ Other cost or expenses (Other than material and Labour cost) incurred for production of good or service.

Example: Rent
Electricity

According to the Identifiable

Direct Cost

Indirect Cost

Direct Cost

- The direct cost is the cost directly identifiable with a cost unit(Goods or Services).

Example: Direct Material Cost
Direct Labour Cost
Direct Other Cost

Indirect Cost

- The indirect cost is the cost that can't identify directly with a cost unit(Goods or Services).

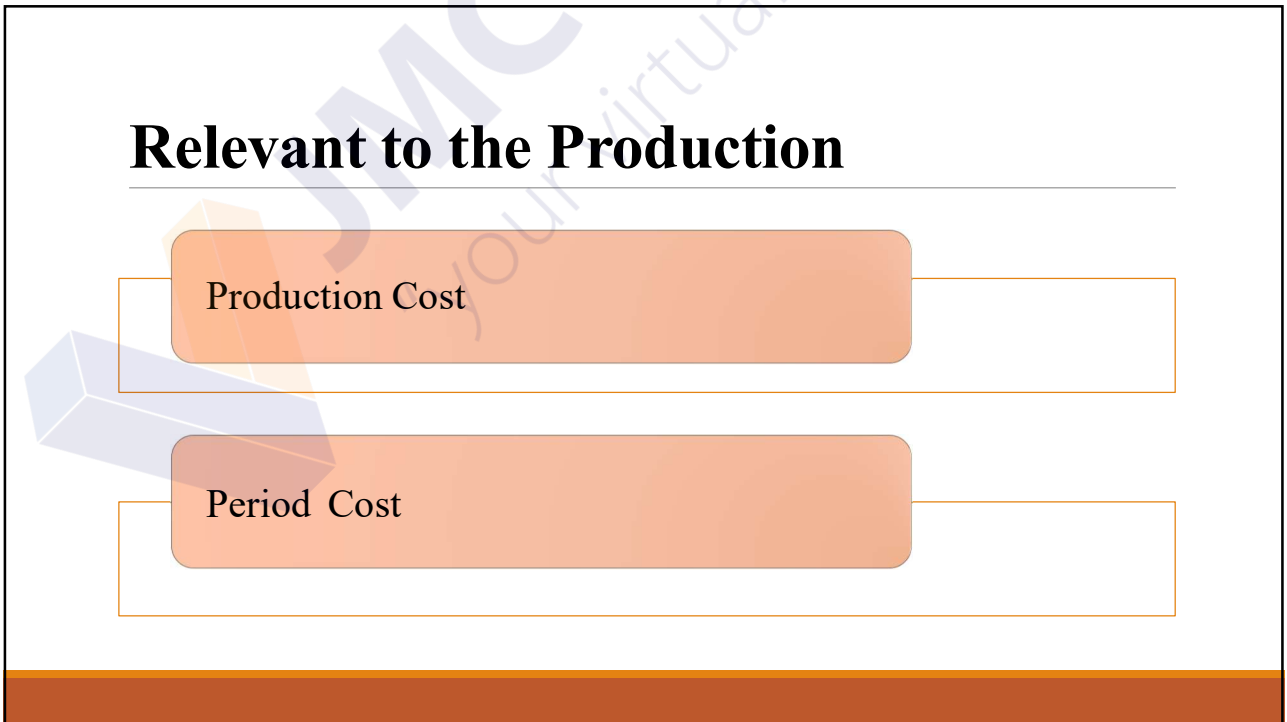
Example: Indirect Material Cost
Indirect Labour Cost
Indirect Other Cost



Relevant to the Production

Production Cost

Period Cost



Production Cost

❑ The cost incurred to produce good or provide the service.

❑ Components of the production cost as follows.

Direct Material Cost	XXX
Direct Labour Cost	XXX
Direct other Cost	<u>XXX</u>
Primary Cost	XXX
Production overhead Cost	XXX
Total Production Cost	XXX

Period Cost

❑ Period costs are all costs not included in product costs. Period costs are not directly tied to the production process.

Example: Selling & Distribution Cost
Administrative Cost

According to the Functions

Production Cost

Administrative Cost

Selling & Distribution Cost

Production Cost

- ▣ The cost incurred to produce good or provide the service.

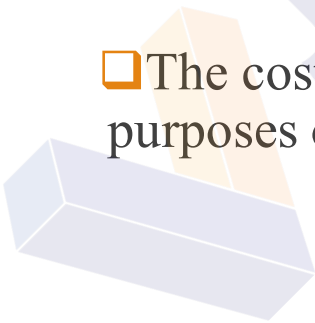


Administrative Cost

- The cost incurred for administrative purposes of the entity.

Selling & Distribution Cost

- The cost incurred for selling & distribution purposes of the entity.



Relevant to the Management Decision

Relevant Cost

Irrelevant Cost



Based on the Behavior of the Cost

Variable Cost

Fixed Cost

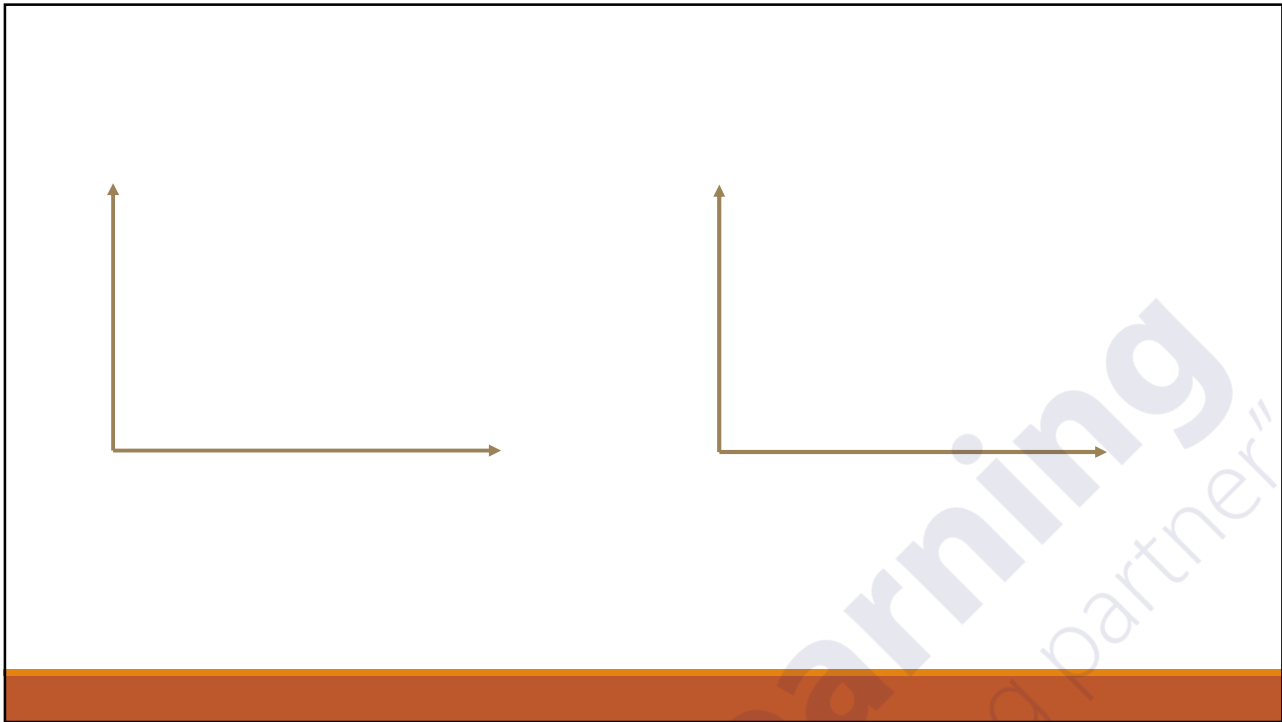
Semi Variable / Fixed Cost

Variable Cost



- The Cost that is changing with the production level of the entity.

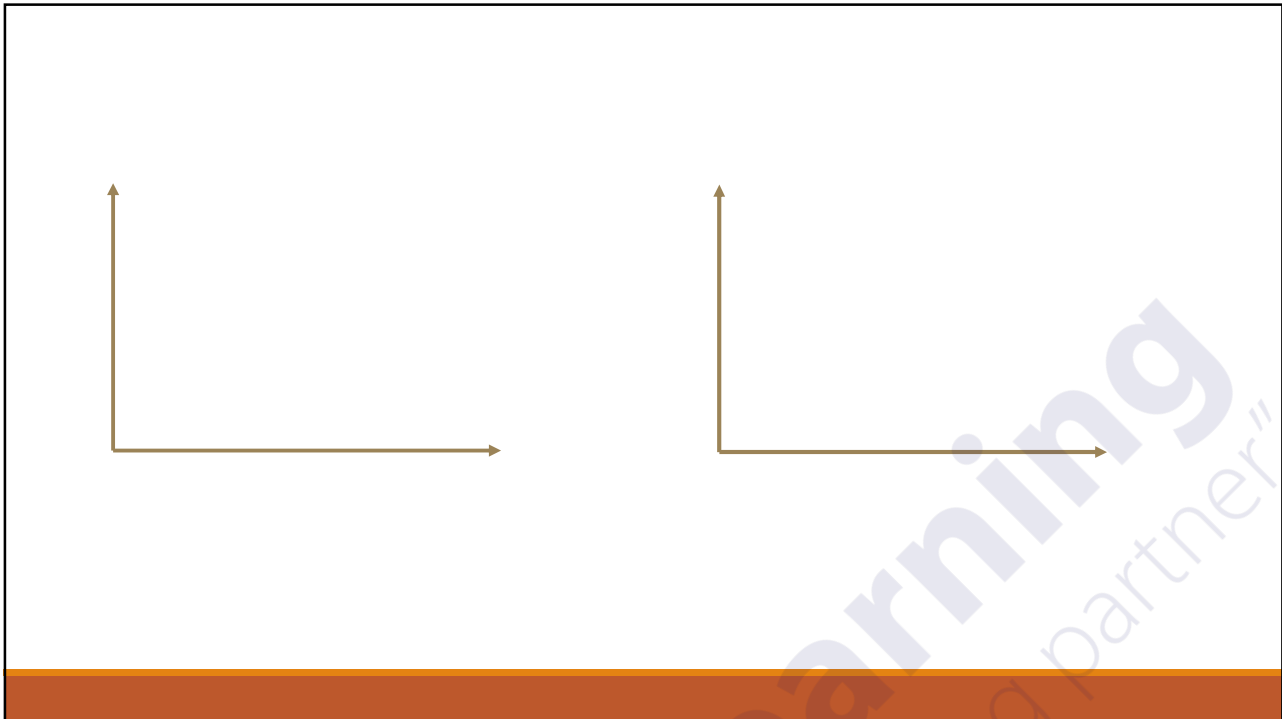
Example: Direct Material Cost
Direct Labour Cost
Direct Other Cost



Fixed Cost

- ❑ The Cost that is not changing with the production level of the entity.

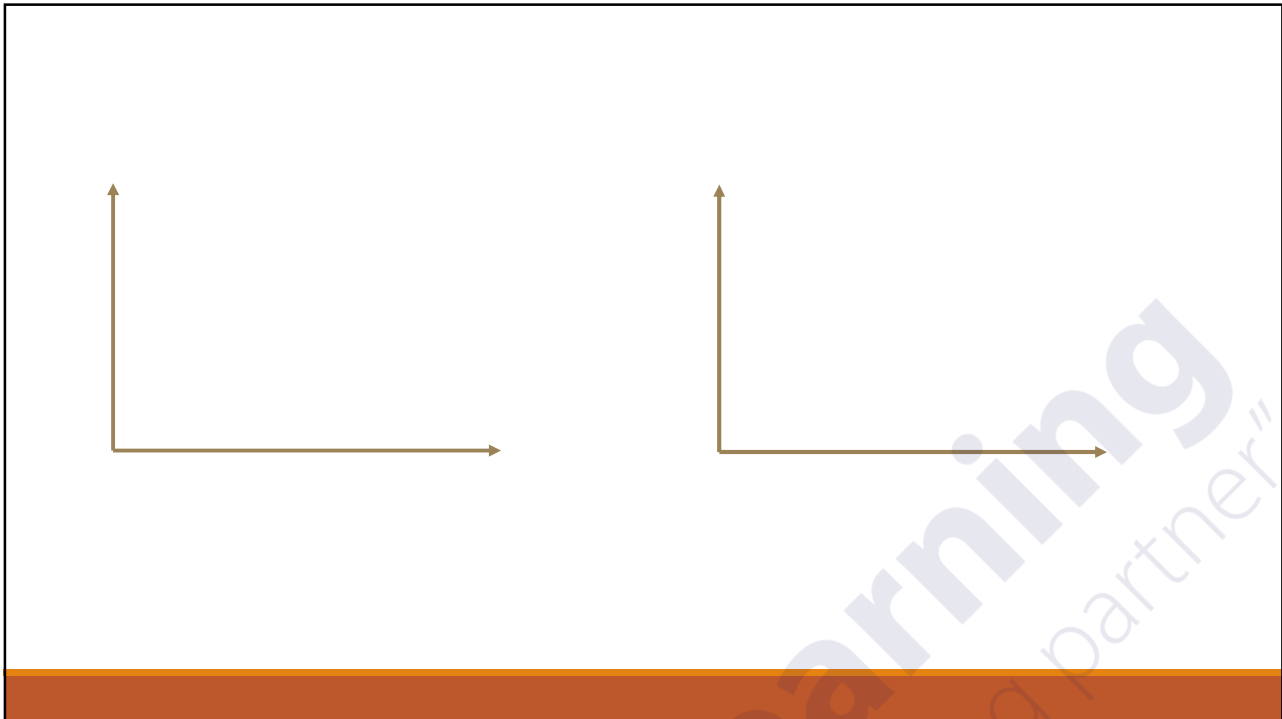
Example: Rent
Supervisors Salary



Semi Variable / Semi Fixed Cost

- Semi Variable / Semi Fixed Cost means , costs which have both characteristics of the variable cost and fixed cost.

Example: Electricity
Water charges
Phone charges



Separating Variable Cost & Fixed Cost

□ There are 3 methods that can be used to separate the variable cost component & fixed cost component of the Mix cost.

1. High – Low Method
2. Scatter Diagram Method
3. Least Square Method

High – Low Method

Example:

The following details are regarding to the last five months production cost of the ABC PLC.

Month	Production Units	Cost
January	2,200	38,200
February	1,950	36,700
March	2,600	40,600
April	2,100	37,600
May	2,350	39,100

Step 01 : Prepare the above details in the ascendant order.



Step 02 :Select the highest and lowest level and get the differences between these levels.

Step 03 :Calculate the per unit variable cost by dividing the cost difference by unit difference.



Step 04 : Calculate the fixed cost by substituting the per unit variable cost for one of above level.

High – Low Method under Inflation

Example:

The following details are regarding to the last four years production cost of the ABC PLC.

Year	Production Units	Cost	Inflation Index
2019	85,000	337,500	100
2020	93,400	365,670	102
2021	95,800	379,080	104
2022	94,300	382,395	106

Step 01 : Prepare the above details in the ascendant order.

Step 02 :Select the highest and lowest level and get the differences between these levels.



Step 03 : Calculate the per unit variable cost by dividing the cost difference by unit difference.

Step 04 : Calculate the fixed cost by substituting the per unit variable cost for one of above level.



Scatter Diagram Method

It is a two-dimensional graph of plotted points in which the vertical axis represents the values of the dependent variable, and the horizontal axis represents the values of the independent variable.

The intersecting points graphically show the pattern of the relationship between the dependent and independent variables.

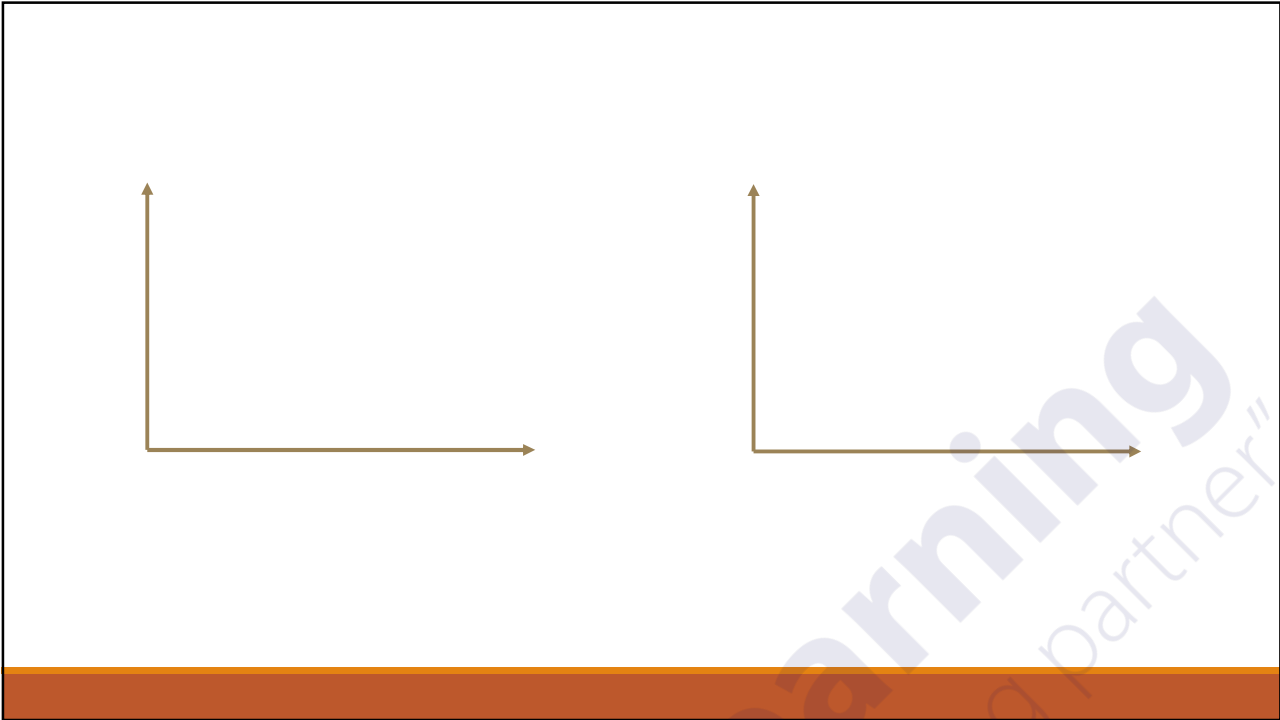
Example : Relationship between sales revenue and advertising expenditure.

Degree of Correlation

Positive & Negative Correlations

Positive Correlation – A positive correlation means , there is a direct relationship between the two variables.

Negative Correlation – A negative correlation means , there is an inverse relationship between the two variables.



Perfect Correlations

If two variables change in the same proportion (increase or decrease), then the correlation between them is a perfect correlation. Here, a perfect correlation can be a positive or negative correlation.



Zero Correlations

If two variables have no relationship between them, then the correlation is zero. It implies that a change in the value of one variable has no effect on the change in the value of the other variable.



Limited degree of Correlations

A limited degree of correlation exists between perfect correlation and zero correlation.

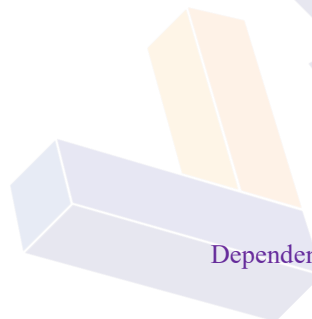


Least Square Method

The least squares method is a statistical procedure to find the best fit for a set of data points.



Simple Linear Regression Model


$$Y = a + bX$$

Labels and arrows in the diagram:

- Intercept**: An arrow points from the label to the constant term a .
- Slope Coefficient**: An arrow points from the label to the coefficient b .
- Dependent Variable**: An arrow points from the label to the variable Y .
- Independent Variable**: An arrow points from the label to the variable X .

$b =$ $a =$


Example

Following are details for the cost of ABC PLC for the last five months.


Month	Production Units	Cost
January	20,000	82,000
February	16,000	70,000
March	24,000	90,000
April	22,000	85,000
May	18,000	73,000

X	Y	XY	X ²	Y ²

$b =$



$a =$



FX 991MS

1. Press mode 2 times.
2. Press 2 for Reg
3. Fresh 1 for Lin Reg
4. Enter X then , Y then M+ (Like wise enter the all amounts)
5. Shift + 2

FX 991ES

1. Press mode 1 time.
2. Press 3 for Stat
3. Fresh 2 for Lin Reg
4. Enter X then , Y
5. Press AC
6. Shift + 1
7. Press 5 for Reg
8. You can get necessary calculation , pressing relevant number + equal button.

Correlation coefficient

$r =$

Example

The following are the places of five students that they got for Econ & Accounting.

Student	Accounting	Econ
A	2	1
B	4	3
C	1	2
D	3	5
E	5	4

Student	Acc	Econ	d	d2



Revision Kit Questions

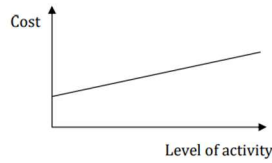
1. Which one of the following would be classed as indirect labour?

- A. Machine operators in a company manufacturing washing machines
- B. A stores assistant in a factory store
- C. Plumbers in a construction company
- D. A consultant in a firm of management consultants

2. Variable costs are conventionally deemed to do which of the following?

- A. Be constant per unit of output
- B. Vary per unit of output as production volume changes
- C. Be constant in total when production volume changes
- D. Vary, in total, from period to period when production is constant

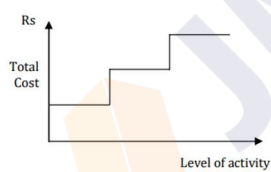
3. The following is a graph of cost against level of activity



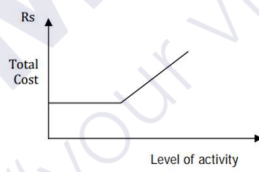
To which one of the following costs does the graph correspond?

- A. Electricity bills made up of a standing charge and a variable charge
- B. Bonus payment to employees when production reaches a certain level
- C. Salesman's commissions payable per unit up to a maximum amount of commission
- D. Bulk discounts on purchases, the discount being given on all units purchased

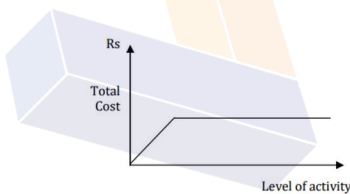
4. The following graphs depict various costs



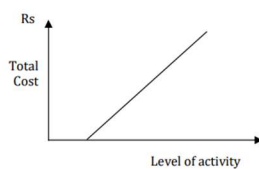
Graph 1



Graph 2



Graph 3



Graph 4

Which of the graphs shows supervisor salary costs, where one supervisor is needed for every five employees added to the staff.

- A. Graph 1
- B. Graph 2
- C. Graph 3
- D. Graph 4

5. A firm has to pay a Rs. 100 per unit royalty to the inventor of a device which it manufactures and sells. The royalty charge would be classified in the firm's accounts as a:

- A. Selling expense
- B. Direct expense
- C. Production overhead
- D. Administrative overhead

6. Which of the following would be classed as indirect labour?

- A. Assembly workers in a company manufacturing televisions
- B. A stores assistant in a factory store
- C. Plasterers in a construction company
- D. An audit clerk in a firm of auditors

7. Which of the following items would most likely be treated as an indirect cost?

- A Wood used to make a chair
- B Metal used for the legs of a chair
- C Fabric to cover the seat of a chair
- D Staples to fix the fabric to the seat of a chair

8. Prime cost is:

- A. All costs incurred in manufacturing a product
- B. The total of direct costs
- C. The material cost of a product
- D. The cost of operating a department

9. A company employs four supervisors to oversee the factory production of all its products. The salaries paid to these supervisors are:

- A. A direct labour cost
- B. A direct production expense
- C. A production overhead
- D. An administration overhead

10. Which of the following best describes a controllable cost?

- A. A cost which arises from a decision already taken, which cannot, in the short run, be changed.
- B. A cost for which the behaviour pattern can be easily analysed to facilitate valid budgetary control comparisons.
- C. A cost which can be influenced by its budget holder.
- D. A specific cost of an activity or business which would be avoided if the activity or business did not exist.

11. Which of the following items might be a suitable cost unit within the credit control department of a company?

- (i) Stationery cost
- (ii) Customer account
- (iii) Cheque received and processed

- A Item (i) only
- B Item (ii) only
- C Item (iii) only
- D Items (ii) and (iii) only

12. Which of the following best describes a period cost?

- A. A cost that relates to a time period which is deducted as expenses for the period and is not included in the stock valuation.
- B. A cost that can be easily allocated to a particular period, without the need for arbitrary apportionment between periods.
- C. A cost that is identified with a unit produced during the period, and is included in the value of stock. The cost is treated as an expense for the period when the stock is actually sold.
- D. A cost that is incurred regularly every period, eg every month or quarter

13. Fixed costs are conventionally deemed to be:

- A. Constant per unit of output
- B. Constant in total when production volume changes
- C. Outside the control of management
- D. Those unaffected by inflation

14. The following data relate to the overhead expenditure of a contract cleaners at two activity levels.

Square metres cleaned	12,750	15,100
Overheads	Rs. 739,500	Rs. 835,850

What is the estimate of the overheads if 16,200 square metres are to be cleaned?

- A. Rs. 664,200 B. Rs. 880,950 C. Rs. 896,740 D. Rs. 939,600



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15.B LLC has recorded the following data in the two most recent periods.

<i>Total costs of production</i>	<i>Volume of production</i>
Rs 000s	Units
13,500	700
18,300	1,100

What is the best estimate of the company's fixed costs per period? Rs 000s

- A. 13,500
- B. 13,200
- C. 5,100
- D. 4,800

16.A production worker is paid a salary of Rs. 6500 per month, plus an extra Rs. 50 for each unit produced during the month. This labour cost is best described as:

- A. A variable cost
- B. A fixed cost
- C. A step cost
- D. A semi-variable cost

17.What type of cost is supervisor salary costs, where one supervisor is needed for every ten employees added to the staff?

- A. A fixed cost
- B. A variable cost
- C. A mixed cost
- D. A step cost

18. An organisation manufactures a single product. The total cost of making 4,000 units is Rs. 200,000 and the total cost of making 2,000 units is Rs. 400,000. Within this range of activity the total fixed costs remain unchanged. What is the variable cost per unit of the product?

- A. Rs. 80
- B. Rs. 100
- C. Rs. 125
- D. Rs. 200

19. Which of the following is the correct definition of a cost unit?

- A. The cost per hour of operating a machine
- B. The cost per unit of electricity consumed
- C. A unit of product or service in relation to which costs are ascertained
- D. A measure of work output in a standard hour

20. Which of the following items might be a suitable cost unit within the accounts payable department of a company?

- A. Postage cost
- B. Invoice processed
- C. Customer account
- D. Purchase orders processed

21. A cost centre is:

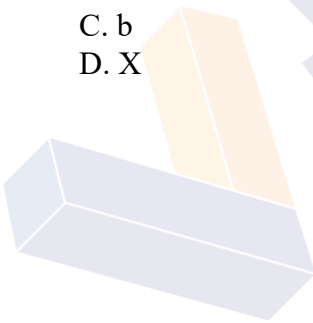
- A. A unit of product or service in relation to which costs are ascertained
- B. An amount of expenditure attributable to an activity
- C. A production or service location, function, activity or item of equipment for which costs are accumulated
- D. A centre for which an individual budget is drawn up

22. A cost is a unit of product, service or activity for which costs can be ascertained. Fill in the missing word from the choices below:

- A object
- B centre
- C unit

23. In the equation $Y = a + bX$, which is the dependent variable?

- A. Y
- B. a
- C. b
- D. X



The following information relates to questions 24 and 25.

You are given the following data for output at a factory and costs of production over the past five months.

	units	Rs'000
	x	y
1	20	82
2	16	70
3	24	90
4	22	85
5	18	73

24. Calculate an equation to determine the expected cost level for any given output volume



25. Prepare a budget for total costs if output is 22,000 units and identify the answer from below:

- A. Rs. 82,000
- B. Rs. 85,900
- C. Rs. 86,200
- D. Rs. 85,200

The following information relates to questions 2.37 and 2.38.

Sales of product B over the 7-year period from year 1 to year 7 were as follows.

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Sales of B ('000 units)	22	25	24	26	29	28	30

26. Calculate the trend line of sales and forecast sales in year 8.

- A. 31,300
- B. 29,200
- C. 31,900
- D. 33,200



27. Calculate the trend line of sales and forecast sales in year 9.

- A. 22,950
- B. 28,000
- C. 32,550
- D. 32,000

