

Paper-8: - Cost Accounting

Full Marks: 100 Time allowed:3 hours

Section-A

Section A contains Question Number 1.All parts of this question are compulsory.

1. Answer the following questions

- (a) Choose the most Appropriate alternative for the following (You may write only the Roman numeral and the alphabet chosen for your answer);

 1 X 10 = 10
- (i) Depreciation is a example of -
- (a) Fixed Cost
- (b) Variable Cost
- (c) Semi Variable Cost
- (d) None of these
- (ii) Continuos stock taking is a part of -
- (a) ABC analysis
- (b) Annual Stock taking
- (c) Perpetual Inventory
- (d) None of these
- (iii) Labour turnover is measured by
- (a) Number of workers replaced average number of workers
- (b) Number of worker left/number in the beginning plus number at the end
- (c) Number of workers joining/number in the beginning of the period
- (d) All of these
- (iv) A manufacturing industry produces product P, Royalty paid on sales is ₹ 47,00 and design charges paid for the product is ₹ 3,000. Compute the Direct Expenses.
- (a) **50,000**
- (b) 44,000
- (c) 47,000
- (d) None of these
- (v) Warehouse expense is an example of
- (a) Production overhead
- (b) Selling overhead
- (c) Distribution overhead
- (d) None of these

- (vi) Standards deals with the principles and methods of determining depreciation and amortization cost-
- (a) CAS 9
- (b) CAS 12
- (c) CAS 15
- (d) CAS 16
- (vii) In Reconciliation Statement Expenses shown only in cost accounts are.
- (a) Added to financial profit
- (b) Deducted from financial profit
- (c) Ignored
- (d) Added to costing profit
- (viii) Operating costing is applicable to:
- (a) Hospitals
- (b) Cinemas
- (c) Transport
- (d) All of the above
- (ix) If sales are ₹ 3,00,000 and variable cost are ₹ 1,00,000.compute P/V ratio.
- (a) 66.67%
- (b) 100 %
- (c) 133.33%
- (d) 33.33%
- (x) Cost of service under operating costing is ascertained by preparing.
- (a) Cost sheet
- (b) Process account
- (c) Job cost sheet
- (d) Production account

(b) Match the statement in column I with the most appropriate statement in Column II 1X5=5

	Column I	3	Column II
(i)	Notional Cost	(A)	FSN Analysis
(ii)	Process of classifying Material	(B)	Income credited only in cost account
(iii)	Warehouse rent	(C)	Imputed cost
(iv)	Notional Rent charged to	(D)	Floor area occupied
(∨)	In hospital the cost companies, the cost unit is	(E)	Per bed

Answer:

MTP	<u>_Intern</u>	nediate_Sy	l2016_Jur	ie,2019_Pa	per 8_Set 1
(i)C	(ii)A	(iii)D	(iv)B	(v)E
		e following statem	• •	. ,	1x5=5
(ii) Mo (iii) Co (iv) Co	argin of safe ontact cost ost control	aual is the summarety =Profit/P/V rations is variant of josecounts are preportations and the terminal idle to the summare in t	o b costing pared on the b	asis of double er	ntry system. Iculating prime cost.
Answer:	/) -	(") _T	() T	(.)5
(i)F	(ii	/ 0	(iii)T	(iv)T	(v)F
	n the blanks fit is the resu	ultant two varying	factors viz	and	1X5=5
(iii) Pe Exper (iv) Dire (v) The	enalties/dainses. ect Materic	s kept and mainto mages paid to s al ++ l in a budget does	tatutory autho Direct <mark>Exp</mark> enses	s = Prime Cost	be form part of Direct ar.
Answer:	es ,Cost	(ii) Cost Office	(iii)Shall Not	(iv)Direct v	vages (v)same
(1) 041		er any five que	Section –	B question numb	
(i) Re-ord (iii) Minin (iv) Dang	dering leve num level ger level	ls given below, co I(ii) Maximum leve	*	Total Control	
(a) Cost (b) Num	of placing ber of units	y is to be calcula a purchase order to be purchased per unit inclusive o	is ₹ 40 during the yec	ır is 5,000	ornation:

(d) Annual cost of storage per units is ₹ 10 (e) Details of lead time: Average 10 days, Maximum 15 days, Minimum 6 days.

For emergency purchases 4 days

(f) Rate of consumption: Average: 30 units per day, Maximum: 40 units per day

(b) From the following particulars given below compute Machine hour rate for a machine.

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- a. Cost ₹ 48,000
- b. Scrap value ₹ 8,000
- c. Estimated Working life 40,000 hours
- d. Estimated cost of repairs and maintenance during the whole life ₹ 4,000
- e. Standard charges of the shop for 4 weekly period ₹ 6,000
- f. Working hours in 4 weekly period 100 hours
- g. No.of machines in the shop each of which is liable for equal charge are 30 machines.
- h. Power used per hour 4 units @ 20p. per unit

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Answer:2(a)

$$EOQ = \sqrt{\frac{2X5,000X40}{10}} = 200 \text{ units}$$

Min Rate of Consumption = (30X 2) -40 =20 units

- (i) Re-order Level (ROL) = Maximum usage per period X Maximum Re-order Period = (40 X 15) = 600 units per day
- (ii) Maximum Level = ROL+ROQ (Min Rate of Consumption X Min Re-order Period) = 600 units +200 units (20 units per day X 6 days)

= 680 units

(iii) Minimum level =ROL –(Average Rate of Consumption X Average Re-order Period) =600 – (30 units per day X 10 days)

=300 units

(iv) Danger Level =Average Consumption X Lead time for Emergency Purchases

= 30 units per day X 4 days

= 120 units

(b) Computation of Machine Hour Rate

	Particulars		Rate per hour
Standing Charges			
Standing Charges	[6,000/(100 X30)]		2
Machine Expenses			
Depreciation	[(48,000 -8,000)/40,000]	0.5	
Repairs	[4,000/40,000]	0.1	
Power	[4 X .2]	8.0	1.4
<u> </u>	Machine Hour Rate		3.4

3(a) Discuss-Objectives & Functions of the CASB.

[6]

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(b) The net profits of a manufacturing company appeared at ₹ 1,29,000 as per financial records for the year ended 31st December, 2016. The cost books however, showed a net profit of ₹ 1,72,920 for the same period. A careful scrutiny of the figures from both the sets of accounts revealed the following facts.

	₹
(i) Income-tax provided in financial books	40,000
(ii) Bank Interest (Cr) in financial books	500
(iii) Work overhead under recovered	3,100
(iv) Depreciation charged in financial records	11,200
(v) Depreciation recovered in cost	12,000
(vi) Administrative overheads over-recovered	1,700
(vii) Loss due to obsolescence charged in financial accounts	5,600
(viii) Interest on Investments not included in cost accounts	8,000
(ix) Stores adjustments (Credit in financial books)	480
(x) Loss due to depreciation in stock value	6,700
Prepare Reconciliation Statement.	[

Answer 3(a)

The objectives of the CASB are to develop high quality Cost Accounting Standards to enable the management to take informed decisions and to enable regulators to function more effectively by integrating, harmonizing and standardizing Cost Accounting Principles and Practices.

The following will be the functions of the CASB:-

- (a) To issue the framework for the Cost Accounting Standards.
- (b) To equip the Cost & Management Accounting professionals with better guide lines on cost Accounting Principles.
- (c) To assists the members in preparation of uniform cost statements under various statutes.
- (d) To provide from time to time interpretations on Cost Accounting Standards.
- (e) To issue application guidance relating to particular standard.
- (f) To propagate the Cost Accounting Standards and to persuade the users to adopt them in the preparation and presentation of general purpose Cost Statement.
- (g) To persuade the government and appropriate authorities to enforce Cost Accounting Standards, to facilitate the adoption thereof, by industry and corporate entities in order to achieve the desired objectives of standardization of Cost Accounting Practices.
- (h) To educate the users about the utility and the need for compliance of Cost Accounting Standards.

3(b)

Statement showing reconciliation of profit shown by cost and financial accounts as on 31-12-2018

Particulars	Amount(₹)	Amount(₹)
Profit as per Financial Accounts		1,29,000
Add: Income Tax provided in financial books only	40,000	
Works overhead under recover	3,100	

Loss to obsolescence considered. Financial A/c only Loss due to depreciation in stock	5,600 <u>6,700</u>	
		<u>55,400</u>
		1,84,400
Less: Bank interest credited in financial books.	500	
Over recovery of depreciation	800	
Administration overhead over recovered	1,700	
Interest on investment not included in cost books	8,000	
Stores adjustment	480	11,480
Profit as per Cost Accounts		1,72,920

- **4(a)** The data pertaining to Heavy Engineering Ltd. using are as follows at the end of 31.3.2018. Direct material ₹ 11,25,000; Direct wages ₹ 9,37,500; Selling and distribution overhead ₹ 6,56,250; Administrative overhead ₹ 5,25,000, Factory overhead ₹ 4,50,000 and Profit ₹6,09,000.
- (i) Prepare a cost sheet showing all the details.
- (ii) For 2017-18, the factory has received a work order. It is estimated that the direct materials would be ₹ 15,00,000 and direct labour cost ₹ 9,37,500. What would be the price of work order if the factory intends to earn the same rate of profit on sales, assuming that the selling and distribution overhead has gone up by 15%? The factory recovers factory overhead as a percentage of direct wages and administrative and selling and distribution overheads as a percentage of works cost, based on the cost rates prevalent in the previous year.

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(b) In a factory producing joint products of two varieties, the following data are extracted from the books:

Test Level	TOTAL(₹)
Sales of products X and Y	15,00,000
Direct Material	4,50,000
Direct Labour	2,20,000
Variable Overhead(150 % on Labour)	3,30,000
Fixed Overhead	4,00,000
A CATTOLINA	2

The analysis of sales reveals that the percentage of sale of product X is $66\frac{2}{3}\%$

Management contemplates to process further joint products so that they could be sold at higher rates. Facilities for this are available. The additional expenditure for the further process and total sales anticipated at higher selling prices are given below. Make recommendations presenting the affect of the proposal.

	Product X (₹)	Product Y(₹)	Total(₹)
Sales after further processing	12,00,000	6,00,000	18,00,000
Additional material	1,00,000	40,000	1,40,000
Additional direct labour	40,000	16,000	56,000

Answer:

4(a) (i)Statement of Cost

Particulars	Amount(₹)
Direct Material	11,25,000
Direct Wages	9,37,500
Prime Cost	20,62,500
Factory Overhead (60 % of wages)	5,62,500
Work Cost	26,25,000
Administration Overhead (20 % works cost)	5,25,000
Cost of Production	31,50,000
Selling & Distribution Overheads (25 % of Works Cost)	6,56,250
Cost of Sales	38,06,250
Profit (1/5 of Cost)	7,61,250
Sales	<u>45,67,500</u>

(ii)Estimated price of work order

Particulars	Amount(₹)
Direct Material	15,00,000
Direct Wages	9,37,500
Prime Cost	24,37,500
Factory Overhead (60 % of wages)	5,62,500
Work Cost	30,00,000
Administration Overhead (20 % works cost)	6,00,000
Cost of Production	36,00,000
Selling & Distribution Overheads	
(40 % i.e 25 % +15 %of Works Cost)	12,00,000
Cost of Sales	48,00,000
Profit (1/5 of Cost)	9,60,000
Sales	57,60,000

(b)

		I		
	Particulars	X(₹)	Y(₹)	Total(₹)
(i)	Sales after further processing	12,00,000	6,00,000	18,00,000
(ii)	Sales at split off	10,00,000	5,00,000	15,00,000
(iii)	Incremental sales	2,00,000	1,00,000	3,00,000
(iv)	Incremantal/Additional/Further processing/Separate cost:			
	Material	1,00,000	40,000	1,40,000

	Labour	40,000	16,000	56,000
	Variable Overhead	60,000	24,000	84,000
(∨)	Incremental Profit/Loss		20,000	20,000

- **5(a)** Mr. Sohan Singh has started transport business with a fleet of 10 taxies. The various expenses incurred by him are given below:
- (i) Cost of each taxi ₹ 1,12,500
- (ii) Salary of office Staff ₹ 2,250 p.m.
- (iii) Salary of Garage's Supervisor ₹ 3,000 p.m.
- (iv) Rent of Garage ₹ 1,500 p.m
- (v) Drivers Salary (per taxi) ₹ 600 pm.
- (vi) Road Tax and Repairs per taxi ₹ 3,240 p.a.
- (vii) Insurance premium @ 4% of cost p.a.

The life of a taxi is 3,00,000 km. and at the end of which it is estimated to be sold at ₹ 22,500. A taxi runs on an average 4,000 Km. per month of which 20% it runs empty, petrol consumption 9 Km. per litre of petrol costing ₹ 9.45 per litre. Oil and other sundry expenses amount to ₹ 15 per 100 Km.

Calculate the effective cost of running a taxi per kilometre. If the hire charge is ₹ 2.70 per Kilometre, find out the profit that Mr.Shoan may expect to make in the first year of operation.

[8]

(b) Kapur Engineering Company undertakes long term contract which involves the fabrication of pre stressed concrete block and the reaction of the same on consumer's life.

The following information is supplied regarding the contract which is incomplete on 31 st March, 2019

Cost Incurred	Amount()
Fabrication cost to date:	
Direct material	4,20,000
Direct Labour	1,35,000
Overheads	1,12,500
Erection cost to date	22,500
Total	6,90,000
Total Contract price	12,28,500
Cash received on account	9,00,000
Technical estimate of works completed to date:	
Fabrication: Direct materials	80%
Direct labour and overheads	75%
Erection	25%

You are required to prepare a statement for submission to the management indicating

- (i) The estimated profit on the completion of the contract.
- (ii) The estimated profit to date on the contract

[7]

Answer:

5(a) Statement showing Computation of Effective Cost and Profit for the Year

Particulars	Amount(₹)	Amount(₹)
Fixed Cost		
Salary of Staff	2,250	
Salary of garage supervisor	3,000	
Rent of garage	1,500	
Driver Salary (10 X 600)	6,000	
Road tax and repairs (3,240 x 10/12)	2,700	
Insurance premium (1,12,500 X 4% x 10/12)	3,750	19,200
Fixed cost of 10 taxi's per month		
Cost per taxi = 19,200/10=1,920	150	0.40
Cost Per km = 1,920/4,000=0.48	191	0.48
Running Cost	131	
Depreciation [(1,12,500-22,500)/3,00,000]	1-11	0.30
Petrol (9.45/9)		1.05
Oil & sundry expenses (15/100)	1 3	0.15
P	7	1.98
Effective cost per km =1.98 x(100/80)		2.475

Profit for the year = (2.70 - 2.475) X 10 X3,200 X12 = ₹86,400

(b) Statement showing computation of profit on completion of contract and profit to date

Deutieudeus	In our road to data (₹)	To be incurred (F)	Total/#\
Particulars	Incurr <mark>ed t</mark> o date(₹)	To be incurred(₹)	Total(₹)
Material	4,20,000	1,05,000	5,25,000
Labour	1,35,000	45,000	1,80,000
Overhead	1,12,500	37,500	1,50,000
Erection	22,500	67,500	90,000
Total	4		9,45,000
Profit	T	Garage Control	2,83,500
Contract Price	() / Day		12,28,500

Profit to date = $2.83,500 \times (9,00,000/12,28,500) = 2,07,692$ (or) = $2.83,500 \times (6,90,000/9,45,000) = 2,07,000$

6(a) The following results of a company for the last two years are as follows:

Year	Sales(₹)	Profit(₹)
2018	3,00,000	40,000

2019 3,40,000 50	,000
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You are required to calculate:

- (I) P/V Ratio
- (II) B.E.P
- (iii) The sales required to earn a profit of 80,000
- (iv)Profit when sales are 5,00,000

[8]

(b) A company manufactures scooters and sells it at `3,000 each. An increase of 17% in cost of materials and of 20% of labour cost is anticipated. The increased cost in relation to the present sales price would cause at 25% decrease in the amount of the present gross profit per unit.

At present, material cost is 50%, wages 20% and overhead is 30% of cost of sales.

You are required to:

- (i) Prepare a statement of profit and loss per unit at present and;
- (ii) Compute the new selling price to produce the same percentage of profit to cost of sales as before.

[7]

Answer: 6(a)

Fixed Cost = (Sales X PV ratio) - Profit = (3,00,000 X 25%)-40,000 = ₹ 35,000

(iii) Sales required to earn a profit of 80,000 =
$$\frac{Fixed \cos t + Desired profit}{P/Vratio}$$

(iv) Profit a sales 5,00,000 = (Sales X P/v ratio) - Fixed Cost

(b) Let X and Y be the cost and profit respectively.

$$X + Y = 3,000 \rightarrow (1)$$

Material = $X \times 50/100 = 0.5X$

Labour = $X \times 20/100 = 0.2X$

Overheads = $X \times 30/100 = 0.3X$

After increase of cost:

Material = $0.5 \times 117/100 = 0.585 \times 117/100 = 0$

Labour = $0.2X \times 120/100$ = 0.240 XOverheads

= 0.300 X

= 1.125 X

Profit = $Y \times 75/100 = 0.75Y$

: New Equation 1.125X + 0.75Y = 3,000 \rightarrow (2)

Multiplying Eq. (1) by $0.75 \ 0.75X + 0.75Y = 2,250$

0.375X = 750

X = 750/0.375 = ₹2,000

Y = 3,000 - 2,000 = ₹ 1,000

Statement of cost & profit per unit at present:

Amount (₹)

Material = $2,000 \times 50\%$ = 1,000

Labour = $2,000 \times 20\%$ = 400

Overheads = 2,000 x 30% = 600

= 2,000

(+) profit @ 50% of cost = 1,000

= 3,000

Computation of new selling price to get same percentage of profit:

Amount (₹)

Material = $1,000 \times 117/100$ = 1,170= 480 Labour = $400 \times 120/100$

Overheads = 600

Cost = 2,250

(+) Profit @ 50% = 1,125

New selling price = 3,375

7(a) Using the following information calculate each of three labour variance for each department.

	Dept X	Dept Y
Gross wages direct (₹)	56,160	38,740
Standard hours produced	17,280	12,030
Standard rate per hour (₹)	3	3.40
Actual hours worked	16,400	12,790

[8]

(b) You are required to prepare a Selling Overhead Budget from the estimates given below:

	Amount(₹)
Advertisement	2,000
Salaries of the Sales Dept	2,000

Expenses of the sales Dept.(Fixed)	1,500
Salesmen's remuneration	6,000
Salesman's and Dearness Allowance- Commission @ 1% on sales affected	

Carriage Outwards: Estimated @ 5% on sales

Agents Commission: 71/2% on sales

The sales during the period were estimated as follows:

- (a) ₹1,60,000 including Agent's Sales ₹16,000
- (b) ₹ 1,80,000 including Agent's Sales ₹ 20,000
- (c) ₹2,00,000 including Agent's Sales ₹21,000

Answer:7(a)

Computation of Required Values

	SRSH(1)	SRAH(2)	ARAH(3)
Dept X	3 X 17280 = ₹ 51,840	3 X 16,400 =₹49200	₹56,160
Dept Y	3.4 X 12030 = ₹40902	3.4 x12790 =₹43,486	₹38,740

- 1. SRSH=Standard Cost of Standard Labour
- 2.SRAH=Standard Cost of Actual Labour
- 3.ARAH = Actual Cost of Labour

(0)	Dept X(₹)	Dept Y(₹)
Labour Efficiency Variance =(1)-(2)	2,640 (F)	2,584(A)
Labour Rate Variance =(2)-(3)	6,960(A)	4,746(F)
Labour Cost Variance =(1)-(3)	4,320(A)	2,180(F)

(b) Selling Overhead Budget

(₹)

[7]

Sales	1,60,000	1,80,000	2,00,000
(A) Fixed Overhead:	1	Park	
Advertisement	2,000	2,000	2,000
Salaries of the Sales Dept	2,000	2,000	2,000
Expenses of the sales Dept.(Fixed)	1,500	1,500	1,500
Salesmen's remuneration	6,000	6,000	6,000
Total(A)	11,500	11,500	11,500
(B) Variable Overhead:			
Commission	1,440	1,600	1,790
Carriage outwards (5% on sales)	8,000	9,000	10,000
Agents Commission	1,200	1,500	1,575
Total(B)	10,640	12,100	13,365
Grand Total(A+B)	22,140	23,600	24,865

8. Answer any three out of the following four question:

5 X 3 = 15

- (a) Cost Control vs Cost Reduction
- (b) Objectives of Cost Accountancy
- (c) Advantages of perpetual inventory system
- (d)Limitation of Standard Costing (any five)

Answer:

8(a)

Cost Control	Cost Reduction
(a) Cost Control represents efforts made towards achieving target or goal.	a) Cost Reduction represents the achievement in reduction of cost.
(b) The process of Cost Control is to set up a target, ascertain the actual performance and compare it with the target, investigate the variances, and take remedial measures.	(b) Cost Reduction is not concern with maintenance of performance according to standard.
(c) Cost Control assumes the existence of standards or norms which are not challenged.	(c) Cost Reduction assumes the existence of concealed potential savings in standards or norms which are therefore subjected to a constant challenge with a view to improvement by bringing out savings.
(d) Cost Control is a preventive function. Costs are optimized before they are incurred.	d) Cost Reduction is a corrective function. It operates even when an efficient cost control system exists. There is room for reduction in the achieved costs under controlled conditions.
(e) Cost Control lacks dynamic approach.	(e) Cost Reduction is a continuous process of analysis by various methods of all the factors affecting costs, efforts and functions in an organization. The main stress is upon the why of a thing and the aim is to have continual economy in costs.

8(b) The following are the main objectives of Cost Accounting:-

- (i) To ascertain the Costs under different situations using different techniques and systems of costing
- (ii) To determine the selling prices under different circumstances
- (iii) To determine and control efficiency by setting standards for Materials, Labour and Overheads
- (iv) To determine the value of closing inventory for preparing financial statements of the concern
- (v) To provide a basis for operating policies which may be determination of Cost Volume relationship, whether to close or operate at a loss, whether to manufacture or buy from

market, whether to continue the existing method of production or to replace it by a more improved method of production....etc

8(c) Advantages of perpetual inventory system:

- (i) The system obviates the need for the physical checking of all items of stock and stores at the end of the year.
- (ii) It avoids the dislocation of the routine activities of the organisation including production and despatch.
- (iii) A reliable and detailed check on the stores is maintained.
- (iv) Errors, irregularities and loss of stock through other methods are quickly detached and through necessary action recurrence of such things in future is minimised.
- (v) As the work is carried out systematically and without undue haste the figures are readily available.
- (vi) Actual stock can be compared with the authorised maximum and minimum levels, thus keeping the stocks within the prescribed limits. The disadvantages of excess stocks are avoided and capitalised up in stores materials cannot exceed the budget.
- (vii) The recorder level of various items of stores are readily available thus facilitating the work of procurement of stores.
- (viii) For monthly or quarterly financial statements like Profit and Loss Account and Balance Sheet the stock figures are readily available and it is not necessary to have physical verification of the balances.

8(d) Limitations of standard costing:

- 1. Establishment of standard costs is difficult in practice.
- 2. In course of time, sometimes even in a short period the standards become rigid.
- 3. Inaccurate, unreliable and out of date standards do more harm than benefit.
- 4. Sometimes, standards create adverse psychological effects. If the standard is set at high level, its non achievement would result in frustration and build-up of resistance.
- 5. Due to the play of random factors, variances cannot sometimes be properly explained, and it is difficult to distinguish between controllable and non-controllable expenses.
- 6. Standard costing may not sometimes be suitable for some small concerns. Where production cannot be carefully scheduled, frequent changes in production conditions result in variances. Detailed analysis of all of which would be meaningless, superfluous and costly.
- 7. Standard costing may not, sometimes, be suitable and costly in the case of industries dealing with non-standardized products and for repair jobs which keep on changing in accordance with customer's specifications.
- 8. Lack of interest in standard costing on the part of the management makes the system practically ineffective. This limitation, of course, applies equally in the case of any other system which the management does not accept wholeheartedly.