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CA INTER CMA

Amendment Batch 1 Notes

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About CA Rakesh Agrawal

- He passed his B. Com examination from Ness Wadia College of Commerce, Pune in 1989 with distinction.
- He was the Captain of his college Chess Team.
- He was adjudged as the Best Mountaineer of the College for 1988 – 89 year.
- He received the Gold Medal from University of Pune in the Special subject of Cost & Management Accountancy at B. Com level.
- He passed his M. Com. Exam also from University of Pune (external), with the specialization in Advanced Cost & Management Accounting. Of course, he again cleared this exam with distinction.
- He cleared his ICWA examination in the first attempt in December, 1990 and stood Third in the Pune Chapter of Cost Accountants.
- He started teaching the subject of Costing at Pune Chapter of Cost Accountants in the year 1991, as a visiting faculty.
- He completed his CA Final examination in November 1992 attempt with 32nd Rank in All India Merit.
- He has cleard Information Systems Auditor (ISA) exam of ICAI in the very first attempt.
- He has passed State Eligibility Test (SET) in Commerce in the very first attempt.
- He has also passed the Mutual Fund exam and Derivatives Core Module, conducted by National Stock Exchange.
- He is the Founder of Vidarbha Professional Academy (1996), Nagpur.
- He has launched a free mobile app titled as “Costing Dictionary by CA Rakesh Agrawal”. You may download it from Google Playstore.
- He has an online store www.carakeshagrawal.in. Students can buy video lectures from this website and study anytime anywhere.
- He is a Teacher by Passion and Chartered Accountant by Profession.
- He is well known for Conceptual Coaching and Student Friendly nature. At the same time he maintains classroom discipline.
- He teaches you a subject for your life time. He also tries to co-relate the subject with day to day life.
- He believes that “Education is not merely getting a Degree, but it is gaining Knowledge”.
- He enjoys teaching and he wants all of you to enjoy learning the subject also.

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Preface to Amendment Batch 1

Dear Student Friends,

ICAI had issued an updated study material in October, 2020. It is made applicable from May, 2021 examination and onwards. This led to a fear in the minds of students that ICAI has changed the syllabus.

Really speaking, there is **no change in syllabus**. It is only an **updation** in the existing module to remove previous errors and to add / delete some questions. The syllabus of Cost & Management Accounting subject doesn't change much like DT and IDT.

I have incorporated the new questions of this module in my Version 3 batch. However, those who have studied with me earlier in Version 1 or Version 2 batch, wanted to know and understand the new questions to update themselves.

With the objective to update the previous batch students, I have planned to record this Amendment batch 1.

I hope it will help you to not only update yourself but will also help you to revise the subject.

I have noticed certain errors in the new module of ICAI. I have shared these errors with the Board of Studies (BOS) of our Institute. ICAI may issue a corrigendum to module in future, if they take care of my suggestions. However, to bring it to your notice, I am also sharing my observations about these errors with you. It is printed at the end in these notes.

I have tried to make these notes error free. However, no one in this world is perfect. If you notice any errors in these notes, please bring it to my notice. Any suggestions and constructive comments to make further improvement is always welcome. You may write to me on my email address given below.

Keep studying with a smiling face !

Your companion in the journey of becoming CA

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1 BASIC COST CONCEPTS

1. **Responsibility Centres :** We had discussed 4 types of responsibility centres i.e. (a) Cost Centre (b) Revenue Centre (c) Profit Centre and (d) Investment Centre.

   The cost centre is further divided in two parts :

   (i) Standard Cost Centre : It is a cost centre where input-output relationship is clear and measureable. Hence, these cost centres are used for variance analysis purpose and the manager is held responsible for adverse cost variances.

   (ii) Discretionary Cost Centre : It is a cost centre where input-output relationship is not clear and the output is not measureable. Hence, the actual cost is compared with the budgeted cost for an activity. For example, R&D department, Advertisement department, Accounts department etc.

2. COST ACCOUNTING WITH THE USE OF INFORMATION TECHNOLOGY (IT) :

With the expansion of e-commerce and increasing competitive business environment, information technology is becoming an integral part of each activity in an organisation including Cost & Management Accounting. Information technology has changed the cost and management accounting functions dramatically with the introduction of Enterprise Resource Planning (ERP) system. The new industrial revolution in the form of digital innovation has laid more emphasis on digitization and automation of business process. It helps to have a better control over the cost and to maintain market competitiveness. Cost accounting system has seen lot of savings in terms of time, money and efforts. The impact of IT in cost accounting may include the following :

1. After the introduction of ERP, different functional activities get integrated and as a consequence, a single entry into the accounting system provides custom made reports for every purpose and saves an organisation from preparing different sets of documents.
2. A move towards paperless environment can be seen where documents like Bill of Material, Material Requisition Note, Goods Received Note, Labour utilisation report etc. are not longer required to be prepared in multiple copies. The related department can get e-copy from the system.
3. Information technology with the help of internet and intranet are helping in resource procurement and mobilization. For example, production department can get materials from the stores without issuing material requisition note physically. Similarly, purchase order can be initiated to the suppliers with the help of internet. This enables an entity to shift towards Jut-in-Time (JIT) approach of inventory management.
4. Cost information for a cost centre or cost object is ascertained with accuracy in a timely manner. Each cost centre and cost object is codified and all related costs are assigned to the cost objects or cost centres using assigned codes. This automates the cost accumulation and ascertainment process. The cost information can be customized as per the requirement. For example, a manager is able to receive information job-wise, batch-wise, process-wise, cost centre wise etc.
5. Uniformity in preparation of report, budgets and standards can be achieved with the help of IT. ERP software plays an important role in bringing uniformity irrespective of location, currency, language and regulations.
6. Cost and revenue variance reports are generated on real time basis, which enables the management to take control measures immediately.
7. IT enables an entity to monitor and analyse each process of manufacturing or service activity closely to eliminate non value added activities.

   The above are examples of few areas where IT helps in cost accounting.

2 MATERIAL COST

Valuation of Material Receipts / Landed Cost of Material :

The general principle in determination of raw material costs is that all costs incurred in bringing the inventories to their present location and condition should be added to the cost of materials purchased. The total of all such costs (and not just the price paid to the supplier) constitutes the Landed Cost of Materials.

Landed Cost of Materials generally consists of : Invoice Price net of trade discounts, Cost of Containers and Packing Charges, Freight and Forwarding Charges, Transit Insurance, Duties and Taxes viz. GST etc. Necessary deductions and adjustments may be made for Credit allowed for return of containers, GST credit, wherever applicable. The net cost of material purchased determined as above should be used for the entry of materials in the Priced Stores Ledger. The item wise details are given in the table below :

S.N.	Items	Treatment
Discounts and Subsidy :		
(i)	Trade Discount	Trade discount **is deducted** from the purchase price, if it is not shown as deduction in the invoice.
(ii)	Quantity Discount	Like trade discount, quantity discount is also shown as deduction from the invoice. It **is deducted** from the purchase price if not shown as deduction.
(iii)	Cash Discount	Cash discount **is not deducted** from the purchase price. It is treated as interest and finance charges. It is ignored.
(iv)	Subsidy / Grant / Incentives	Any subsidy / grant / incentive received from the Government or from other sources are **deducted** from the cost of purchase.
Duties and Taxes :		
(v)	Road Tax / Toll Tax	Road tax / Toll tax, if paid by the buyer, **is included** with the cost of purchase.
(vi)	Integrated Goods and Service Tax (IGST)	Integrated Goods and Service Tax (IGST) is paid on inter-state supply of goods and provision of services and collected from the buyers. It **is excluded** from the cost of purchase if credit for the same is available. Unless mentioned specifically it should not form part of cost of purchase.
(vii)	State Goods and Service Tax (SGST)	State Goods and Service Tax (SGST) is paid on intra-state supply and collected from the buyers. It **is excluded** from the cost of purchase if credit for the same is available. Unless mentioned specifically it should not form part of cost of purchase.
(viii)	Central Goods and Service Tax (CGST)	Central Goods and Service Tax (CGST) is paid on intra-state supply and collected from the buyers. It **is excluded** from the cost of purchase if credit for the same is available. Unless mentioned specifically it should not form part of cost of purchase.

S.N.	Items	Treatment
(ix)	Basic Custom Duty	Basic Custom duty is paid on import of goods from outside India. It **is added** with the purchase cost.
Penalty and Charges :		
(x)	Demurrage	Demurrage is a penalty imposed by the transporter for delay in uploading or offloading of materials. It is an abnormal cost and **not included** with cost of purchase.
(xi)	Detention charges / Fines	Detention charges / fines imposed for non-compliance of rule or law by any statutory authority. It is an abnormal cost and **not included** with cost of purchase.
(xii)	Penalty	Penalty of any type is **not included** with the cost of purchase.
Other expenditures :		
(xiii)	Insurance charges	Insurance charges are paid for protecting goods during transit. It **is added** with the cost of purchase.
(xiv)	Commission or brokerage paid.	Commission or brokerage paid **is added** with the cost of purchase.
(xv)	Freight inwards / carriage inward	It **is added** with the cost of purchase as it is directly attributable to procurement of material.
(xvi)	Cost of containers	Treatment of cost of containers are as follows: • Non-returnable containers : The cost of containers **is added** with the cost of purchase of materials. • Returnable Containers: If the containers are returned and their costs are refunded, then cost of containers should not be considered in the cost of purchase. • If the amount of refund on returning the container is less than the amount paid, then, only the short fall is added with the cost of purchase.
(xvii)	Shortage	Shortage in materials are treated as follows: **Shortage due to normal reasons :** Good units absorb the cost of shortage due to normal reasons. Losses due to shrinkage, evaporation, normal breakage or due to any unavoidable conditions etc. are the reasons of normal loss. **Shortage due to abnormal reasons :** Shortage arises due to abnormal reasons such as material mishandling, theft, breaking of bulk, accident or due to any avoidable reasons are not absorbed by the good units. Losses due to abnormal reasons are debited to costing profit and loss account.

Re-order Level : There is a minor change in this formula –

Reorder level = (Maximum Usage Rate x Maximum Lead Time)

Reorder level = Minimum Stock Level + (Average Usage Rate x Average L.T.)
[This formula is derived by twisting Minimum Level formula.]

The earlier formula : [(Average U. R. x Average L.T.) + Safety stock] is deleted.

Remaining all formulae are same as earlier.

NEW QUESTIONS ADDED

ABC ANALYSIS

Q. 1 : A factory uses 4,000 varieties of inventory. In terms of inventory holding and inventory usage, the following information is compiled :

No. of varieties of inventory	% of total No. of varieties	% value of average total inventory held	% of inventory usage
3,875	96.875	20	5
110	2.750	30	10
15	0.375	50	85
4,000	100	100	100

Required : Classify the items of inventory as per ABC analysis with reasons.

EOQ & INVENTORY LEVELS

Q. 2 : Calculate EOQ and Total Variable cost from the following information :

i. Annual demand : 5,000 units
ii. Unit price : ₹ 20
iii. Order cost : ₹ 16
iv. Storage rate : 2% per annum
v. Interest rate : 12% per annum
vi. Obsolescence rate : 6% per annum

Also calculate total cost that would result for the items if a new price of ₹ 12.80 is used.

Q. 3 : From the details given below, Calculate :

a. Re-ordering Level

b. Minimum Level

c. Maximum Level and

d. Danger Level

Re-ordering quantity is to be calculated on the basis of following information :

Cost of placing a purchase order is ₹ 4,000

Number of units to be purchased during the year is 5,00,000

Purchase price per unit inclusive of transportation cost is ₹ 50

Annual cost of storage per unit is ₹ 10

Details of lead time : Average 10 days, Maximum 15 days, Minimum 5 days
For emergency purchases 4 days

Rate of consumption : Average 1,500 units per day and Maximum 2,000 units per day.

Q. 4 : Anil & company buys its annual requirement of 36,000 units in 6 installments. Each unit costs ₹ 1 and the ordering cost is ₹ 25. The inventory carrying cost is estimated at 20% of unit value.

FIND the total annual cost of the existing inventory policy. CALCULATE, how much money can be saved by Economic Order Quantity?

Q. 5 : Arnav Electronics manufactures electronic home appliances. It follows weighted average cost method for inventory valuation. Following are the data of component X :

Date	Particulars	Units	Rate per unit (₹)
15-12-19	Purchase Order - 008	10,000	9,930
30-12-19	Purchase Order - 009	10,000	9,780
01-01-20	Opening stock	3,500	9,810
05-01-20	GRN-008 (against the Purchase Order-008)	10,000	-
05-01-20	MRN-003 (against the Purchase Order-008)	500	-
06-01-20	Material Requisition - 011	3,000	-
07-01-20	Purchase Order - 010	10,000	9,750
10-01-20	Material Requisition - 012	4,500	-
12-01-20	GRN-009 (against the Purchase Order-009)	10,000	-
13-01-20	MRN-004 (against the Purchase Order-009)	400	-
15-01-20	Material Requisition - 013	2,200	-
24-01-20	Material Requisition - 014	1,500	-
25-01-20	GRN-010 (against the Purchase Order-010)	10,000	-
28-01-20	Material Requisition - 015	4,000	-
31-01-20	Material Requisition - 016	3,200	-

*GRN = Goods Received Note; **MRN = Material Returned Note

Based on the above data, you are required to CALCULATE :

(i) Re-order level

(ii) Maximum stock level

(iii) Minimum stock level

(iv) PREPARE Store Ledger for the period January 2020 and DETERMINE the value of stock as on 31-01-2020.

(v) Value of components used during the month of January, 2020.

(vi) Inventory turnover ratio.

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3 LABOUR / EMPLOYEE COST

LABOUR REMUNERATION SYSTEMS

Q. 1 : It is seen from the job card for repair of the customer's equipment that a total of 154 labour hours have been put in as detailed below :

Particulars	Worker 'A' paid at ₹ 200 per day of 8 hours	Worker 'B' paid at ₹ 100 per day of 8 hours	Worker 'C' paid at ₹ 300 per day of 8 hours
Monday (hours)	10.5	8.0	10.5
Tuesday (hours)	8.0	8.0	8.0
Wednesday (hours)	10.5	8.0	10.5
Thursday (hours)	9.5	8.0	9.5
Friday (hours)	10.5	8.0	10.5
Saturday (hours)	--	8.0	8.0
Total (hours)	49.0	48.0	57.0

In terms of an agreement with employees, the workers are to be paid dearness allowance on the basis of cost of living index figures relating to each month which works out @ ₹ 968 for the relevant month. The dearness allowance is payable to all workers, for actual hours worked, irrespective of their basic wages rate. For calculation of DA, the normal working hours are 176 in the relevant month.

Sunday is a weekly holiday and each worker has to work for 8 hours on all week days and 4 hours on Saturdays; the workers are however paid full wages for Saturday (8 hours for 4 hours worked).

Overtime is paid twice of ordinary wage rate if a worker works for more than nine hours in a day or forty eight hours in a week, whichever is more beneficial to workman.

CALCULATE the wages payable to each worker.

Q. 2 : Mr. A is working by employing 10 skilled workers. He is considering the introduction of some incentive scheme - either Halsey Scheme (with 50% bonus) or Rowan Scheme of wage payment for increasing the labour productivity to cope with the increased demand for the product by 25%. He feels that if the proposed incentive scheme could bring about an average 20% increase over the present earnings of the workers, it could act as sufficient incentive for them to produce more and he has accordingly given this assurance to workers.

As a result of the assurance, the increase in productivity has been observed as revealed by the following figures for the current month :

Hourly rate of wages (guaranteed)	Rs. 40
Average time for producing 1 piece by one worker at the previous performance (This may be taken as time allowed)	2 hours
No. of working days in the month	25
No of working hours per day for each worker	8
Actual production during the month	1,250 units

Required :

1. Calculate effective rate of earnings per hour under Halsey Scheme and Rowan Scheme.
2. Calculate the savings to Mr. A in terms of direct labour cost per piece under the schemes.
3. Advice Mr. A about the selection of the scheme to fulfill his assurance.

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4

OVERHEADS COST

TREATMENT OF CERTAIN ITEMS IN COSTING :

1. **Interest and Financial charges :**

   These are the expenses related to borrowing i.e. interest paid on debentures, loans etc.

   Though there is a dispute between inclusion and exclusion of interest in the cost accounts, **majority view is to exclude** it from the regular cost sheet. It means, interest and financial charges should generally be excluded from cost accounting. However, for the purposes of decision making, interest should be included in cost to arrive at proper decision. For decision making, we include the notional interest (i.e. implicit cost) also.

   ICAI view is : Interest and financial charges should not be included in cost of production, but it should be shown in the cost of sales as a separate item in the cost sheet.

2. **Expenses on removal and re-erection of machines:**

   Expenses are sometime incurred on removal and re-erection of machinery in factories. Such expenses may be incurred due to factors like change in the method of production; an addition or alteration in the factory building, change in the flow of production, etc. All such expenses are treated as production overheads. When amount of such expenses is large, it may be spread over a period of time.

   If such expenses are incurred due to faulty planning or some other abnormal factor, then they may be charged to costing Profit and Loss Account.

3. **Expenses for welfare activities :**

   All expenses incurred on the welfare activities of employees in a company are part of general overheads. Such expenses should be apportioned between factory, office, selling and distribution overheads on the basis of number of persons involved.

NEW QUESTIONS ADDED

UNDER & OVER ABSORPTION OF OVERHEADS

Q. 1 : A light engineering factory fabricates machine parts for customers. The factory commenced fabrication of 12 nos. machine parts as per customers' specifications, the expenditure incurred on the job for the week ending 21st August, 2020 is as tabulated below:

Particulars	**(₹)**	**(₹)**
Direct materials (all items)		780
Direct labour (manual) 20 hours @ ₹ 15 per hour		300
Machine Facilities :		
Machine No. I : 4 hours @ ₹ 45 per hour	180	
Machine No. II : 6 hours @ ₹ 65 per hour	390	570
Overheads @ ₹ 8 per hour on 20 manual hours		160
Total cost		1,810

The overhead rate of ₹ 8 per hour is based on 3,000 man hours per week; similarly, the machine hour rates are based on the normal working of Machine Nos. I and II for 40 hours out of 45 hours per week.

After the close of each week, the factory levies a supplementary rate for the recovery of full overhead expenses on the basis of actual hours worked during the week. During the week ending 21st August, 2020, the total labour hours worked was 2,400 and Machine Nos. I and II had worked for 30 hours and 32.5 hours respectively.

PREPARE a Cost Sheet for the job for the fabrication of 12 nos. machine parts duly levying the supplementary rates.

Q. 2 : A Ltd., manufactures two products A and B. The manufacturing division consists of two production departments P1 and P2 and two service departments S1 and S2. Budgeted overhead rates are used in the production departments to absorb factory overheads to the products. The rate of Department P1 is based on direct machine hours, while the rate of Department P2 is based on direct labour hours. In applying overheads, the pre-determined rates are multiplied by actual hours.

For allocating the service department costs to production departments, the basis adopted is as follows:

(i) Cost of Department S1 to Department P1 and P2 equally, and

(ii) Cost of Department S2 to Department P1 and P2 in the ratio of 2 : 1 respectively.

The following budgeted and actual data are available :

Factory overheads budgeted for the year :

Production Departments		**Service Departments**	
P1	**P2**	**S1**	**S2**
₹ 25,50,000	₹ 21,75,000	₹ 6,00,000	₹ 4,50,000

Budgeted output in units :

Product A : 50,000; B : 30,000.

Budgeted raw material cost per unit :

Product A : ₹ 120; Product B : ₹ 150.

Budgeted time required for production per unit :

Department P1 : Product A : 1.5 machine hours Product B : 1.0 machine hour

Department P2 : Product A : 2 Direct labour hours Product B : 2.5 Direct labour hours

Average wage rates budgeted in Department P2 are :

Product A - ₹ 72 per hour and Product B – ₹ 75 per hour.

All materials are used in Department P1 only.

Actual data : (for the month of July, 2020)

Units actually produced : Product A : 4,000 units Product B : 3,000 units

Actual direct machine hours worked in Department P1 :

On product A - 6,100 hours, Product B - 4,150 hours.

Actual direct labour hours worked in Department P2 :

on product A - 8,200 hours, Product B - 7,400 hours.

Costs actually incurred :	Product A	Product B
Raw materials	₹ 4,89,000	₹ 4,56,000
Wages	₹ 5,91,900	₹ 5,52,000

Actual Factory overheads for July, 2020 :

Production Departments		**Service Departments**	
P1	**P2**	**S1**	**S2**
₹ 2,31,000	₹ 2,04,000	₹ 60,000	₹ 48,000

You are required to :

(i) COMPUTE the pre-determined overhead rate for each production department.

(ii) PREPARE a performance report for July, 2020 that will reflect the budgeted costs and actual costs.

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5 ACTIVITY BASED COSTING (ABC)

NEW QUESTIONS ADDED

PROBLEM NO. 1 :

Woolmark Ltd. manufactures three types of products namely P, Q and R. The data relating to a period are as under :

Particulars	P	Q	R
Machine hours per unit	10	18	14
Direct Labour hours per unit	4	12	8
Direct Material per unit (₹)	90	80	120
Production (units)	3,000	5,000	20,000

Currently the company uses traditional costing method and absorbs all production overheads on the basis of machine hours. The machine hour rate of overheads is ₹ 6 per hour. Direct labour hour rate is ₹ 20 per hour.

The company proposes to use activity based costing system and the activity analysis is as under :

Particulars	P	Q	R
Batch size (units)	150	500	1,000
Number of purchase orders per batch	3	10	8
Number of inspections per batch	5	4	3

The total production overheads are analysed as under :

Machine set up costs	: 20%
Machine operation costs	: 30%
Inspection costs	: 40%
Material procurement related costs	: 10%

Required :

(i) CALCULATE the cost per unit of each product using traditional method of absorbing all production overheads on the basis of machine hours.

(ii) CALCULATE the cost per unit of each product using activity based costing principles.

PROBLEM NO. 2 :

BABYSOFT is a global brand created by Bio-organic Ltd. The company manufactures three ranges of soaps i.e. BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond. The budgeted costs and production for the month of December, 2020 are as follows :

Particulars	BABYSOFT- Gold		BABYSOFT- Pearl		BABYSOFT- Diamond	
Production (units)	4,000		3,000		2,000	
Resources per unit:	Qty.	Rate	Qty.	Rate	Qty.	Rate
Essential oil	60 ml.	₹ 200/100 ml	55 ml.	₹ 300/100 ml	65 ml.	₹ 300/100 ml
Cocoa butter	20 gm.	₹ 200/100 gm	20 gm.	₹ 200/100 gm	20 gm.	₹ 200/100 gm
Filtered water	30 ml.	₹ 15/100 ml	30 ml.	₹ 15/100 ml	30 ml.	₹ 15/100 ml
Chemicals	10 gm.	₹ 30/100 gm	12 gm.	₹ 50/100 gm	15 gm.	₹ 60/100 gm
Direct labour	30 min.	₹ 10 / hour	40 min.	₹ 10 / hour	60 min.	₹ 10 / hour

Bio-organic Ltd. followed an Absorption Costing System and absorbed its production overheads, to its products using direct labour hour rate, which were budgeted at ₹ 1,98,000.

Now, Bio-organic Ltd. is considering adopting an Activity Based Costing system. For this, additional information regarding budgeted overheads and their cost drivers is provided below :

Particulars	**(₹)**	**Cost drivers**
Fork lifting cost	58,000	Weight of material lifted
Supervising cost	60,000	Direct labour hours
Utilities	80,000	Number of machine operations
Total	1,98,000	

The number of machine operations per unit of production are 5, 5, and 6 for BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond respectively.

You may consider the following for calculation purpose :

(i) Mass of 1 litre of Essential Oils and Filtered Water is equivalent to 0.8 kg and 1 kg respectively.

(ii) Mass of output produced is equivalent to the mass of input materials taken together.

You are requested to :

(i) PREPARE a statement showing the unit costs and total costs of each product using the absorption costing method.

(ii) PREPARE a statement showing the product costs of each product using the ABC approach.

(iii) STATE what are the reasons for the different product costs under the two approaches?

* * * * *

6 COST SHEET

Important Note : In my earlier notes i.e. Version 2, I had included the questions related to Cost Sheet in the chapter of Job Costing & Batch Costing.

However, ICAI has made it a separate chapter in their study material. So I have also separated the cost sheet questions from Job Costing topic and put it in a separate chapter 'Cost Sheet'.

Students of Version 2 should not panic by saying that : a New Chapter is now added, syllabus has changed, now what to do ? Only the cost sheet questions are shifted by me to another separate chapter.

I have also added some theory about preparation of cost sheet and the treatment of certain items in the cost sheet. It is given below for revision purpose only.

Direct Material : It is the cost of direct material consumed in production. Consumption of direct material is calculated as : Opening stock of RM + Purchases & purchase expenses - Closing stock of RM.

The valuation of materials purchased and issued for production shall be done as per methods discussed in the 'Chapter- 2 Material Cost'. Few examples are :

(a) Cost of material;

(b) Freight inwards;

(c) Insurance and other expenditure directly attributable to procurement;

(d) Trade discounts or rebates (to be deducted);

(e) Duties & Taxes (if input tax credit is not available/ availed) etc.

Direct Employee (labour) Cost : It is the total of payment made to the employees who are engaged in the production of goods and provision of services. Employee cost is also known as labour cost; it includes the following :

(a) Wages and salary;

(b) Allowances and incentives;

(c) Payment for overtimes;

(d) Bonus / ex-gratia;

(e) Employer's contribution to welfare funds such as Provident fund and other similar funds;

(f) Other benefits (medical, leave with pay, free or subsidised food, leave travel concession and provisions for retirement benefits) etc.

Direct Expenses : Expenses other than direct material cost and direct employee cost, which are incurred to manufacture a product or for provision of service and can be directly traced in an economically feasible manner to a cost object. The following costs are examples for direct expenses :

(a) Cost of utilities such as power & fuel, steam etc.;

(b) Royalty paid/ payable for production or provision of service;

(c) Hire charges paid for hiring specific equipment;

(d) Fee for technical assistance and know-how;

(e) Amortised cost of moulds, patterns, patents etc.;

(f) Cost for product/ service specific design or drawing;

(g) Cost of product/ service specific software;

(h) Other expenses which are directly related with the production of goods or services.

Factory Overheads : It is also known as **works / production / manufacturing** overheads. It includes the following indirect costs :

(a) Consumable stores and spares;

(b) Depreciation of plant and machinery, factory building etc.

(c) Lease rent of production assets;

(d) Repair and maintenance of plant and machinery, factory building etc.

(e) Indirect employees cost related with production activities;

(f) Drawing and Designing department cost;

(g) Insurance of plant and machinery, factory building, stock of raw material & WIP etc.

(h) Amortized cost of jigs, fixtures, tooling etc.

(i) Service department cost such as Tool Room, Engineering & Maintenance, Pollution Control etc.

Administrative Overheads : These are divided in two parts :

(i) Administration expenses related to production activity and

(ii) General administration expenses.

Examples of Administration related to Production are :

(a) Salary of Factory Manager

(b) Rent and maintenance of factory office building

(c) Insurance of factory office building and office equipments

(d) Depreciation of factory office building and office equipments etc.

Examples of General Administration expenses are :

(a) Depreciation and maintenance of, building, furniture etc. of corporate or general management.

(b) Salary of administrative employees, accountants, directors, secretaries etc.

(c) Rent, rates & taxes, insurance, lighting, office expenses etc.

(d) Indirect materials- printing and stationery, office supplies etc.

(e) Legal charges, audit fees, corporate office expenses like directors' sitting fees, remuneration and commission, meeting expenses etc.

Selling Overheads : It is the cost related with sale of products or services. It includes the following costs :

(a) Salary and wages related with sales department and employees directly related with selling of goods.

(b) Rent, depreciation, maintenance and other cost related with sales department.

(c) Cost of advertisement, maintenance of website for online sales, market research etc.

Distribution Overheads : It includes the cost related with making the goods available to the customers. The examples are :

(a) Salary and wages of employees engaged in distribution of goods.

(b) Transportation and insurance costs related with distribution.

(c) Depreciation, hire charges, maintenance and other operating costs related with distribution vehicles etc.

Interest and other finance costs : **(ICAI View)**

Interest, including any payment in the nature of interest for use of non - equity funds (i.e. borrowed funds) and incidental cost that an entity incurs in arranging those funds.

Interest and finance charges are not included in cost of production. Interest and Financing Charges shall be presented in the cost statement as a separate item of cost of sales.

Important Note :

The general and popular view about interest and financial charges is to exclude it from the cost and cost accounting records. However, in the above paragraph, ICAI has taken the view to include it in the cost sheet. Students are advised to follow the above view to get the marks.

However, you will find a contrary view in the topic of Cost Ledger Accounting. In that topic, it is assumed that interest and financial charges are recorded only in the financial books and not in the costing books.

STANDARD FORMAT OF COST SHEET (With Stock Adjustment) :

Particulars	Amount (Rs.)
DIRECT MATERIAL CONSUMED :	
Opening stock of Raw Material	
Add : Purchases	
Less : Closing stock of Raw Material	
∴ Consumption of Raw Material	
Add : Direct Labour	
Add : Direct Expenses	
∴ **PRIME COST**	
Add : Factory Overheads	
∴ **GROSS FACTORY COST**	
Add : Opening Work-in-Progress	
Less : Closing Work-in-Progress	
∴ **NET FACTORY COST OF FINISHED GOODS**	
Add : Administrative Overheads (related to production)	
∴ **COST OF PRODUCTION**	
Add : Opening Stock of Finished Goods	
Less : Closing Stock of Finished Goods	
∴ **COST OF GOODS SOLD**	
Add : Selling & Distribution Overheads	
Add : General Administration Overheads	
∴ **COST OF SALES**	
Add / Less : Profit / (Loss)	
∴ **SALES**	

NEW DETAILED FORMAT OF COST SHEET :

Particulars	Amount (Rs.)
DIRECT MATERIAL CONSUMED : Opening stock of Raw Material Add : Purchases & purchase expenses Less : Closing stock of Raw Material ∴ Consumption of Raw Material Add : Direct Labour (Employee) Cost Add : Direct Expenses ∴ **PRIME COST** Add : Factory Overheads ∴ **GROSS FACTORY COST** Add : Opening Work-in-Progress Less : Closing Work-in-Progress ∴ **NET FACTORY COST OF FINISHED GOODS** Add : Administrative Overheads (related to production) Add : Quality Control Cost Add : Research & Development Cost Add : Primary Packing Cost Less : Credit for Scrap / By products / Misc. Income etc. ∴ **COST OF PRODUCTION** Add : Opening Stock of Finished Goods Less : Closing Stock of Finished Goods ∴ **COST OF GOODS SOLD** Add : Administrative Overheads (General) Add : Selling Overheads Add : Distribution Overheads Add : Secondary Packing cost Add : Interest and Financial charges ∴ **COST OF SALES** Add / Less : Profit / (Loss) ∴ **SALES**	

New Questions

Q. 1 : The following data relates to the manufacture of a standard product during the month of April, 2020 :

Particulars	**(Amount ₹)**
Raw materials	1,80,000
Direct wages	90,000
Machine hours worked (hours)	10,000
Machine hour rate (per hour)	8
Administration overheads (general)	35,000
Selling overheads (per unit)	5
Units produced	4,000 units
Units sold	3,600 units
Selling price per unit	125

You are required to PREPARE a cost sheet in respect of the above showing :

(i) Cost per unit

(ii) Profit for the month

Q. 2 : The following information has been obtained from the records of ABC Corporation for the period from June 1 to June 30, 2020 :

Particulars	**1.6.2020 (₹)**	**30.6.2020 (₹)**
Cost of raw materials	60,000	50,000
Cost of work-in-process	12,000	15,000
Cost of stock of finished goods	90,000	1,10,000
Purchase of raw materials during June 2020		4,80,000
Direct Wages paid		2,40,000
Factory overheads		1,00,000
Administration overheads (related to production)		50,000
Selling & distribution overheads		25,000
Sales		10,00,000

You are required to PREPARE a cost sheet from the above information.

Q. 3 : From the following particulars, you are required to PREPARE monthly cost sheet of Aditya Industries :

Particulars	**(Amount ₹)**
Opening Inventories :	
- Raw materials	12,00,000
- Work-in-process	18,00,000
- Finished goods (10,000 units)	9,60,000
Closing Inventories:	
- Raw materials	14,00,000
- Work-in-process	16,04,000
- Finished goods	?
Raw materials purchased	1,44,00,000
GST paid on raw materials purchased (ITC available)	7,20,000
Wages paid to production workers	36,64,000
Expenses paid for utilities	1,45,600
Office and administration expenses paid	26,52,000
Travelling allowance paid to office staffs	1,21,000
Selling expenses	6,46,000

Machine hours worked - 21,600 hours
Machine hour rate - ₹ 8.00 per hour
Units sold - 1,60,000
Units produced - 1,94,000
Desired profit - 15% on sales

Q. 4 : A Ltd. Co. has capacity to produce 1,00,000 units of a product every month. Its works cost at varying levels of production is as under :

Level	**Works cost per unit (₹)**
10%	400
20%	390
30%	380
40%	370
50%	360
60%	350
70%	340
80%	330
90%	320
100%	310

Its fixed administration expenses amount to ₹ 1,50,000 and fixed marketing expenses amount to ₹ 2,50,000 per month respectively. The variable distribution cost amounts to ₹ 30 per unit.

It can sell 100% of its output at ₹ 500 per unit provided it incurs the following further expenditure :

(a) it gives gift items costing ₹ 30 per unit of sale;

(b) it has lucky draws every month giving the first prize of ₹ 50,000; 2nd prize of ₹ 25,000, 3rd prize of ₹ 10,000 and three consolation prizes of ₹ 5,000 each to customers buying the product.

(c) it spends ₹ 1,00,000 on refreshments served every month to its customers;

(d) it sponsors a television programme every week at a cost of ₹ 20,00,000 per month.

It can market 30% of its output at ₹ 550 per unit without incurring any of the expenses referred to in (a) to (d) above.

PREPARE a cost sheet for the month showing total cost and profit at 30% and 100% capacity level.

Q. 5 : Arnav Ispat Udyog Ltd. has the following expenditures for the year ended 31.03.2020 :

Particulars	**(Amount ₹)**	**(Amount ₹)**
Raw materials purchased		10,00,00,000
GST paid on the above purchases @ 18% (eligible for ITC)		1,80,00,000
Freight inwards		11,20,600
Wages paid to factory workers		29,20,000
Contribution made towards employees' PF & ESI		3,60,000
Production bonus paid to factory workers		2,90,000
Royalty paid for production		1,72,600
Amount paid for power & fuel		4,62,000
Amount paid for purchase of moulds and patterns (life is equivalent to two years production)		8,96,000
Job charges paid to job workers		8,12,000
Stores and spares consumed		1,12,000
Depreciation on :		
Factory building	84,000	
Office building	56,000	
Plant & Machinery	1,26,000	
Delivery vehicles	86,000	3,52,000
Salary paid to supervisors		1,26,000
Repairs & Maintenance paid for :		
Plant & Machinery	48,000	
Sales office building	18,000	
Vehicles used by directors	19,600	85,600

Insurance premium paid for :		
Plant & Machinery	31,200	
Factory building	18,100	
Stock of raw materials & WIP	36,000	85,300
Expenses paid for quality control check activities		19,600
Salary paid to quality control staffs		96,200
Research & development cost paid for improvement in production process		18,200
Expenses paid for pollution control and engineering & maintenance		26,600
Expenses paid for administration of factory work		1,18,600
Salary paid to functional mangers :		
Production control	9,60,000	
Finance & Accounts	9,18,000	
Sales & Marketing	10,12,000	28,90,000
Salary paid to General Manager		12,56,000
Packing cost paid for :		
Primary packing necessary to maintain quality	96,000	
For re-distribution of finished goods	1,12,000	2,08,000
Interest and finance charges paid (for use of non-equity fund)		7,20,000
Fee paid to auditors		1,80,000
Fee paid to legal advisors		1,20,000
Fee paid to independent directors		2,20,000
Performance bonus paid to sales staffs		1,80,000
Value of stock as on 1st April, 2019 :		
- Raw materials	18,00,000	
- Work-in-process	9,20,000	
- Finished goods	11,00,000	38,20,000
Value of stock as on 31st March, 2020 :		
- Raw materials	9,60,000	
- Work-in-process	8,70,000	
- Finished goods	18,00,000	36,30,000

Amount realized by selling of scrap and waste generated during manufacturing process ₹ 86,000.

From the above data you are required to PREPARE Statement of cost for Arnav Ispat Udyog Ltd. for the year ended 31st March, 2020, showing :

(i) Prime cost,

(ii) Factory cost,

(iii) Cost of Production,

(iv) Cost of goods sold and

(v) Cost of sales.

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7 JOB COSTING, BATCH COSTING, AND SINGLE OUTPUT COSTING

PROBLEMS ON SINGLE OUTPUT COSTING

Q. 1 : The following data relates to the manufacture of a standard product during the 4-week ended 29th February 2020 :

Raw Materials Consumed	₹ 4,00,000
Direct Wages	₹ 2,40,000
Machine Hours Worked	3,200 hours
Machine Hour Rate	₹ 40
Office Overheads (production related)	10% of works cost
Selling Overheads	₹ 20 per unit
Units produced and sold	10,000 at ₹ 120 each

You are required to FIND OUT the cost and profit per unit for the 4-week ended on 29th February, 2020.

Q. 2 : Atharva Pharmacare Limited produced a uniform type of product and has a manufacturing capacity of 3,000 units per week of 48 hours. From the records of the company, the following data is available relating to output and cost for 3 consecutive weeks :

Week Number	Units Manufactured	Direct Material (₹)	Direct Wages (₹)	Factory Overheads (₹)
1	1,200	9,000	3,600	31,000
2	1,600	12,000	4,800	33,000
3	1,800	13,500	5,400	34,000

Assuming that the company charges a profit of 20% on selling price, FIND OUT the selling price per unit when the weekly output is 2,000 units.

Hint : Use CVP analysis of Marginal Costing.

PROBLEMS ON BATCH COSTING

Q. 3 : A Company has an annual demand from a single customer for 50,000 litres of a paint product. The total demand can be made up of a range of colour to be produced in a continuous production run after which a set-up of the machinery will be required to accommodate the colour change. The total output of each colour will be stored and then delivered to the customer as single load immediately before production of the next colour commences.

The Set up costs are ₹ 100 per set up. The Service is supplied by an outside company as required.

The Holding costs are incurred on rented storage space which costs ₹ 50 per sq. meter per annum. Each square meter can hold 250 litres suitably stacked.

You are required to :

(i) CALCULATE the total cost per year where batches may range from 4,000 to 10,000 litres in multiples of 1,000 litres and then choose the production batch size which will minimize the total cost.

(ii) Use the economic batch size formula to CALCULATE the batch size which will minimise total cost.

Q. 4 : Arnav Confectioners (AC) owns a bakery which is used to make bakery items like pastries, cakes and muffins. AC used to bake at the most 50 units of any item at a time.

A customer has given an order for 600 muffins. To process a batch of 50 muffins, the following cost would be incurred : Direct materials - ₹ 500; Direct wages - ₹ 50; Oven set-up cost ₹ 150. AC absorbs production overheads at a rate of 20% of direct wages cost. 10% is added to the total production cost of each batch to allow for selling, distribution and administration overheads. AC requires a profit margin of 25% of sales value.

DETERMINE the selling price for 600 muffins.

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8 CONTRACT COSTING

New Question

Q. 1 : A contractor has entered into a long term contract at an agreed price of ₹ 17,50,000 subject to an escalation clause for materials and wages. The escalation clause is based on standard data for any increase or decrease in prices of material and wages.

The standard and actual details of this contract are as follows :

Particulars	**Standard**		**Actual**	
Materials	**Qty (tons)**	**Rate/ton (₹)**	**Qty (tons)**	**Rate/ton (₹)**
A	5,000	50.00	5,050	48.00
B	3,500	80.00	3,450	79.00
C	2,500	60.00	2,600	66.00
Wages	**Hours**	**Rate/hr. (₹)**	**Hours**	**Rate/hr. (₹)**
X	2,000	70.00	2,100	72.00
Y	2,500	75.00	2,450	75.00
Z	3,000	65.00	3,100	66.00

After calculating the difference between total standard cost and actual cost, the company has claimed a final price of ₹ 17,73,600.

Give your ANALYSIS of admissible escalation claim and indicate the final price payable.

* * * * *

9 SERVICE COSTING

QUESTIONS OF TRANSPORT SERVICES

Q. 1 : GTC has a lorry of 6 ton carrying capacity. It operates lorry service from city A to city B. It charges ₹ 2,400 per ton from city 'A' to city 'B' and ₹ 2,200 per ton for the return journey from city 'B' to city 'A'. Goods are also delivered to an intermediate city 'C', which is on the way. However, rates for all outward journey between any city will remain same i.e. ₹ 2,400 per ton and for the return journey between any city will be ₹ 2,200 per ton.

Distance between the city 'A' to 'B' is 300 km, distance from city 'A' to 'C' is 140 km and hence distance from city 'C' to 'B' is 160 km i.e. (300 - 140).

The details of journeys made during January, 2020 are as follows :

Outward journey	**No. of journeys**	**Load (in ton)**
'A' to 'B'	10	6
'A' to 'C'	2	6
'C' to 'B'	2	4
Return journey	**No. of journeys**	**Load (in ton)**
'B' to 'A'	5	8
'B' to 'A'	6	6
'B' to 'C'	1	6
'C' to 'A'	1	0

Annual fixed costs and maintenance charges are ₹ 6,00,000 and ₹ 1,20,000 respectively. Running charges spent during January 2020 are ₹ 2,94,400 (it includes ₹ 12,400 paid as penalty for overloading).

You are required to :

(i) CALCULATE the cost as per (a) Commercial ton-kilometre and (b) Absolute ton-kilometre

(ii) CALCULATE Net Profit / loss for the month of January, 2020.

Q. 2 : A company is considering three alternative proposals for conveyance facilities for its sales personnel who has to do considerable traveling, approximately 20,000 kilometres every year. The proposals are as follows :

(i) Purchase and maintain its own fleet of cars. The average cost of a car is ₹ 6,00,000.

(ii) Allow the Executive use his own car and reimburse expenses at the rate of ₹ 10 per kilometer and also bear insurance costs.

(iii) Hire cars from an agency at ₹ 1,80,000 per year per car. The company will have to bear costs of petrol, taxes and tyres.

The following further details are available :

Petrol ₹ 6 per km.	Repairs and maintenance ₹ 0.20 per km.
Tyre ₹ 0.12 per km.	Insurance ₹ 1,200 per car per annum
Taxes ₹ 800 per car per annum	Life of the car is 5 years with annual run of 20,000 km.

Resale value : ₹ 80,000 at the end of the fifth year.

WORK OUT the relative costs of three proposals and rank them.

QUESTION FOR HOTELS AND LODGES

Q. 3 : A company runs a holiday home. For this purpose, it has hired a building at a rent of ₹ 10,000 per month along with 5% of total taking. It has three types of suites for its customers, viz., single room, double rooms and triple rooms. Following information is given :

Type of suite	Number	Occupancy %
Single room	100	100%
Double room	50	80%
Triple room	30	60%

The rent of double rooms suite is to be fixed at 2.5 times of the single room suite and that of triple rooms suite as twice of the double rooms suite. The other expenses for the year 2020 are as follows :

Particulars	(₹)
Staff salaries	14,25,000
Room attendants' wages	4,50,000
Lighting, heating and power	2,15,000
Repairs and renovation	1,23,500
Laundry charges	80,500
Interior decoration	74,000
Sundries	1,53,000

Provide profit @ 20% on total taking and assume 360 days in a year.

You are required to CALCULATE the rent to be charged for each type of suite.

QUESTION FOR TOLL ROADS

Q. 4 : SLS Infrastructure has decided to build and operate a 110 km highway on the basis of Built-Operate-Transfer (BOT) for a period of 25 years. A traffic assessment carried out to estimate the traffic flow per day shows the following figures :

S.N.	Type of vehicle	Daily traffic volume
1.	Two wheelers	44,500
2.	Car and SUVs	3,450
3.	Bus and LCV	1,800
4.	Heavy commercial vehicles	816

The following is the estimated cost of the project :

S.N.	Activities	(₹ in lakh)
1	Site clearance	170.70
2	Land development and filling work	9,080.35
3	Sub base and base courses	10,260.70
4	Bituminous work	35,070.80
5	Bridge, flyovers, pedestrian subway, footbridge, etc.	29,055.60
6	Drainage and protection work	9,040.50
7	Traffic sign, marking and road appurtenance	8,405.00
8	Maintenance, repairing and rehabilitation	12,429.60
9	Environmental management	982.00
	Total Project cost	114,495.25

Total cost of ₹ 1,120 lakh has to be incurred on administration and toll plaza operation over the period of 25 years.

On the basis of the vehicle specifications (i.e. weight, size, time saving etc.), the following weights has been assigned to the passing vehicles :

S.N.	Type of vehicle	Weightage
1.	Two wheelers	5%
2.	Car and SUVs	20%
3.	Bus and LCV	30%
4.	Heavy commercial vehicles	45%

Required :

(i) CACULATE the total project cost per day of concession period.

(ii) COMPUTE toll fee to be charged for per vehicle of each type, if the company wants to earn a profit of 15% on total cost.

[Note : Concession period is a period for which an infrastructure is allowed to operate and recovers its investment.]

COSTING FOR INSURANCE COMPANIES

Q. 5 : HDFC Life Insurance Ltd. operates in life insurance business. Last year it launched a new term insurance policy for practicing professionals named as 'Professionals Protection Plus'. The company has incurred the following expenditures during the last year for the policy :

Particulars	**₹**
Policy development cost	11,25,000
Cost of marketing of the policy	45,20,000
Sales support expenses	11,45,000
Policy issuance cost	10,05,900
Policy servicing cost	35,20,700
Claims management cost	1,25,600
IT cost	74,32,000
Postage and logistics	10,25,000
Facilities cost	15,24,000
Employees cost	5,60,000
Office administration cost	16,20,400

Number of policy sold - 528

Total insured value of policies - ₹ 1,320 crore

Required :

(i) CALCULATE total cost for Professionals Protection Plus' policy segregating the costs into four main activities namely (a) Marketing and Sales support, (b) Operations, (c) IT and (d) Support functions.

(ii) CALCULATE cost per policy.

(iii) CALCULATE cost per rupee of insured value.

COSTING FOR EDUCATIONAL INSTITUTIONS

Q. 6 : AD Higher Secondary School (AHSS) offers courses for 11th & 12th standard in three streams i.e. Arts, Commerce and Science. AHSS runs higher secondary classes along with primary and secondary classes, but for accounting purpose it treats higher secondary as a separate responsibility centre. The Managing committee of the school wants to revise its fee structure for higher secondary students. The accountant of the school has provided the following details for a year :

Particulars	₹
Teachers' salary (25 teachers × ₹ 35,000 × 12 months)	1,05,00,000
Principal's salary	14,40,000
Lab attendants' salary (2 attendants × ₹ 15,000 × 12 months)	3,60,000
Salary to library staff	1,44,000
Salary to peons (4 peons × ₹ 10,000 × 12 months)	4,80,000
Salary to other staffs	4,80,000
Examination expenditure	10,80,000
Office & Administration cost	15,20,000
Annual day expenses	4,50,000
Sports expenses	1,20,000

Other information :

Particulars	Standard 11 & 12			Primary & Secondary
	Arts	Commerce	Science	
No. of students	120	360	180	840
Lab classes in a year	0	0	144	156
No. of exams in a year	2	2	2	2
Total time spent at library by students per year	180 hours	120 hours	240 hours	60 hours
Time spent by principal for administration	208 hours	312 hours	480 hours	1,400 hours
No. of teachers	4	5	6	10

- One teacher who teaches economics for Arts stream students, also teaches commerce stream students. The teacher takes 1,040 classes in a year, it includes 208 classes for commerce students.
- There is another teacher who teaches mathematics for Science stream students, also teaches business mathematics to commerce stream students. She takes 1,100 classes a year, it includes 160 classes for commerce students.
- One peon is fully dedicated for higher secondary section. Other peons dedicate their 15% time for higher secondary section.
- All school students irrespective of section and age participates in annual functions and sports activities.

Required :

(a) CALCULATE cost per student per annum for all three streams.

(b) If the management decides to take uniform fee of ₹ 1,000 per month from all higher secondary students, CALCULATE stream wise profitability.

(c) If management decides to take 10% profit on cost, COMPUTE fee to be charged from the students of all three streams respectively.

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10 PROCESS COSTING AND OPERATION COSTING

EQUIVALENT PRODUCTION

Q. 1 : A company produces a component, which passes through two processes. During the month of April, 2020, materials for 40,000 components were put into Process I of which 30,000 were completed and transferred to Process II. Those not transferred to Process II were 100% complete as to materials cost and 50% complete as to labour and overheads cost. The Process I costs incurred were as follows :

Direct material	₹ 15,000
Direct wages	₹ 18,000
Factory overheads	₹ 12,000

Of those transferred to Process II, 28,000 units were completed and transferred to finished goods stores. There was a normal loss with no salvage value of 200 units in Process II. There were 1,800 units, remained unfinished in the process with 100% complete as to materials and 25% complete as regard to wages and overheads.

No further process material costs occur after introduction at the first process until the end of the second process, when protective packing is applied to the completed components. The process and packing costs incurred at the end of the Process II were :

Packing materials	₹ 4,000
Direct wages	₹ 3,500
Factory overheads	₹ 4,500

Required :

(i) PREPARE Statement of Equivalent Production, Cost per unit and Process I A/c.

(ii) PREPARE Statement of Equivalent Production, Cost per unit and Process II A/c.

Q. 2 : Opening work-in-process 1,000 units (60% complete); Cost ₹ 1,10,000. Units introduced during the period 10,000 units; Cost ₹ 19,30,000. Transferred to next process - 9,000 units.

Closing work-in-process - 800 units (75% complete). Normal loss is estimated at 10% of total input including units in process at the beginning. Scraps realise ₹ 10 per unit. Scraps are 100% complete.

COMPUTE equivalent production, cost per equivalent unit and prepare process account :

(a) Using FIFO method and

(b) Using Weighted Average method.

Q. 3 : Following details are related to the work done in Process-I by XYZ Company during the month of March, 2020 :

Opening work-in process (2,000 units)	(₹)
Materials	80,000
Labour	15,000
Overheads	45,000
Materials introduced in Process-I (38,000 units)	14,80,000
Direct Labour	3,59,000
Overheads	10,77,000

Units scrapped : 3,000 units

Degree of completion :	
Materials	100%
Labour and overheads	80%

Closing work-in process : 2,000 units

Degree of completion :	
Materials	100%
Labour and overheads	80%

Units finished and transferred to Process-II : 35,000 units

Normal Loss : 5% of total input including opening work-in-process.
Scrapped units fetch ₹ 20 per piece.

You are required to PREPARE using average method :

(i) Statement of equivalent production

(ii) Statement of cost

(iii) Statement of distribution cost, and

(iv) Process-I Account, Normal Loss Account and Abnormal Loss Account.

Q. 4 : 'Healthy Sweets' is engaged in the manufacturing of jaggery. Its process involve sugarcane crushing for juice extraction, then filtration and boiling of juice along with some chemicals and then letting it cool to cut solidified jaggery blocks.

The main process of juice extraction (Process – I) is done in conventional crusher, which is then filtered and boiled (Process – II) in iron pots. The solidified jaggery blocks are then cut, packed and dispatched. For manufacturing 10 kg of jaggery, 100 kg of sugarcane is required, which extracts only 45 litre of juice.

Following information regarding Process – I has been obtained from the manufacturing department of Healthy Sweets for the month of January, 2020 :

	(₹)
Opening work-in process (4,500 litre) :	
Sugarcane	50,000
Labour	15,000
Overheads	45,000
Sugarcane introduced for juice extraction (1,00,000 kg)	5,00,000
Direct Labour	2,00,000
Overheads	6,00,000

Abnormal Loss : 1,000 kg

Degree of completion :	
Sugarcane	100%
Labour and overheads	80%

Closing work-in process : 9,000 litre

Degree of completion :	
Sugarcane	100%
Labour and overheads	80%

Extracted juice transferred for filtering and boiling : 39,500 litre

(Consider mass of 1 litre of juice equivalent to 1 kg)

You are required to PREPARE using average method :

(i) Statement of equivalent production,

(ii) Statement of cost,

(iii) Statement of distribution cost, and

(iv) Process-I Account.

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11 JOINT PRODUCT AND BY PRODUCT COSTING

ACCOUNTING OF JOINT PRODUCTS

We discussed various methods of accounting of Joint Products in the classroom. I would like to discuss two methods again with the difference between them. Because, ICAI has confused itself and students while using these two methods in their module.

1. **Apportionment on the basis of net realisable value at the split off point :** If products are further processed before selling them and further processing cost is available in the question, then we should prefer this method. This method is popularly called as NRV method.

2. **Reverse Cost Method :** If estimated profit on sale of joint products is given in the question, then this method can be used. Reverse cost of joint products is calculated as : (Final sale value - Estimated profit - Further processing cost - Selling expenses). Now, actual joint cost is apportioned in this ratio of reverse cost. If the data to calculate reverse cost is available in the question, then we should prefer this method over all methods.

   Note : Unfortunately, ICAI has explained this method with example under the name of Net Realisable Value (NRV) method. ICAI should distinguish between NRV and Reverse Cost Method to avoid confusion.

Question on Reverse Cost Method

Q. 1 : A Factory is engaged in the production of chemical Bomex and the course of its manufacture a by-product Cromex is produced which after further processing has a commercial value. For the month of April 2020 the following are the summarised cost data :

Particulars	Joint Expenses (₹)	Separate Expenses (₹)	
		Bomex	Cromex
Materials	1,00,000	6,000	4,000
Labour	50,000	20,000	18,000
Overheads	30,000	10,000	6,000
Selling Price per unit		100	40
Estimated profit on sale of Cromex p.u.			5
Number of units produced		2,000	2,000

The factory uses reverse cost method for appointment of joint cost to by-product.

You are required to prepare statements showing :

(i) Joint cost allocable to Cromex

(ii) Product wise and overall profitability of the factory for April 2020.

* * * * *

12 COST LEDGER ACCOUNTING INTEGRATED ACCOUNTS AND RECONCILIATION OF PROFITS

IMPORTANT OBSERVATIONS :

- There is no new questions in this chapter. One question which we had solved in Chapter 6 of Job Costing i.e. Q.13/12 (Volume II - Version 2) of Gogetter Co. is shifted here by ICAI.
- You have to be careful about the accounting treatment of 'Administration Overheads'. If Administration OH are related to production, then debit it to 'Finished Goods Account'. If it is general or sales related administration, then debit it to 'Cost of Sales Account'.
- If the Administration OH absorption rate is given as : e.g. ₹ 10 per unit produced; then it is assumed to be related to production and hence to be debited to 'Finished Goods Account'.
- If question is silent about the type of Administration Overheads, then make a suitable assumption about it for the correct accounting treatment.
- In the 'Cost Sheet' chapter ICAI has mentioned that : 'Interest & Financial Charges' will form part of 'Cost of Sales' in the Cost sheet. However, in this chapter of Cost Ledger Accounting, 'Interest & Financial Charges' are excluded from cost ledger accounts and it is shown in the 'Reconciliation Statement' of profit. In short, treatment of 'Interest & Financial Charges' is different in two different chapters.
- In the chapter of 'Overheads'; there are only two methods to carry forward the under / over absorbed overheads i.e. (a) Supplementary rate method and (b) Transfer to Costing P&L account. However, in this chapter of Cost Ledger Accounting, ICAI has carried forward the under / over absorbed overheads to the next period in some cases. For students, the hint is : if you find the balance in overheads account in the opening trial balance, then you will also carry it forward to next period on safer side, by writing an assumption.
- I have found many types of errors in the new module of ICAI (Oct. 2020) and I have already reported it to the BOS. You will find the list of such errors with chapter number and page number on our website, under the tab 'Student Corner'.

* * * * *

13 MARGINAL COSTING

Basic Questions

Q.1 : By noting "P/V will increase or P/V will decrease or P/V will not change", as the case may be, STATE how the following independent situations will affect the P/V ratio :

(i) An increase in the physical sales volume;

(ii) An increase in the fixed cost;

(iii) A decrease in the variable cost per unit;

(iv) A decrease in the contribution margin;

(v) An increase in selling price per unit;

(vi) A decrease in the fixed cost;

(vii) A 10% increase in both selling price and variable cost per unit;

(viii) A 10% increase in the selling price per unit and 10% decrease in the physical sales volume;

(ix) A 50% increase in the variable cost per unit and 50% decrease in the fixed cost.

(x) An increase in the angle of incidence.

Q.2 : The following information is given by Star Ltd. :

Margin of Safety	₹ 1,87,500
Total Cost	₹ 1,93,750
Margin of Safety	3,750 units
Break-even Sales	1,250 units

CALCULATE : (a) Profit,

(b) P/V Ratio,

(c) BEP Sales (in ₹) and

(d) Fixed Cost.

Q.3 : PQR Ltd. has furnished the following data for the two years :

Particulars	2019	2020
Sales (₹)	8,00,000	?
Profit Volume Ratio	50%	37.5%
Margin of Safety as % to total sales	40%	21.875%

There has been substantial savings in the fixed cost in the year 2020 due to the restructuring process. The company could maintain its sales quantity level of 2019 in 2020 by reducing the selling price.

You are required to calculate the following :

(a) Sales for 2020 in value

(b) Fixed cost for 2020 in value and

(c) Break even sales for 2020 in value.

Q.4 : ABC Hospital runs a Critical Care Unit (CCU) in a hired building. CCU consists of 35 beds and 5 more beds can be added, if required.

Rent per month @ ₹ 75,000

Supervisors – 2 persons @ ₹ 25,000 per month each

Nurses – 4 persons @ ₹ 20,000 per month each

Ward Boys – 4 persons @ ₹ 5,000 per month each

Doctors are paid ₹ 2,50,000 per month. They are paid on the basis of number of patients attended and the time spent by them.

Other expenses for the year are as follows :

Repairs (Fixed) – ₹ 81,000

Food to Patients (Variable) – ₹ 8,80,000

Other services to patients (Variable) – ₹ 3,00,000

Laundry charges (Variable) – ₹ 6,00,000

Medicines (Variable) – ₹ 7,50,000

Other fixed expenses – ₹ 10,80,000

Administration expenses allocated (fixed) – ₹ 10,00,000

It was estimated that for 150 days in a year 35 beds are occupied and for 80 days only 25 beds are occupied.

The hospital hired 750 beds at a charge of ₹ 100 per bed per day, to accommodate the flow of patients. However, this does not exceed more than 5 extra beds over and above the normal capacity of 35 beds on any day.

You are required to –

(a) CALCULATE profit per patient day, if the hospital recovers on an average ₹ 2,000 per day from each patient and

(b) FIND OUT Breakeven point for the hospital.

Relevant & Irrelevant Costing

Q.5 : A company can make any one of the 3 products X, Y or Z in a year. It can exercise its option only at the beginning of each year. Relevant information about the products for the next year is given below.

Particulars	**X**	**Y**	**Z**
Selling Price (₹ / unit)	10	12	12
Variable Cost (₹ / unit)	6	9	7
Market Demand (Units)	3000	2000	1000
Production capacity (units)	2000	3000	900
Total Fixed Costs (₹)	30,000		

You are required to compute the opportunity costs for each of the products.

Q.6 : X Ltd. supplies spare parts to an air craft company Y Ltd. The production capacity of X Ltd. facilitates production of any one spare part for a particular period of time. The following are the cost and other information for the production of the two different spare parts A and B :

Per unit data :	**Part A**	**Part B**
Alloy usage	1.6 kgs.	1.6 kgs.
Machine Time: Machine P	0.6 hrs	0.25 hrs.
Machine Time: Machine Q	0.5 hrs.	0.55 hrs.
Target Price (₹)	145	115

Total hours available : Machine P - 4,000 hours

Machine Q - 4,500 hours

Alloy available is only 13,000 kgs. @ ₹ 12.50 per kg.

Variable overheads per machine hour for - Machine P : ₹ 80

Machine Q : ₹ 100

Required :

(i) IDENTIFY the spare part which will optimize contribution at the offered price.

(ii) If Y Ltd. reduces target price by 10% and offers ₹ 60 per hour of unutilized machine hour, CALCULATE the total contribution from the spare part identified above?

Q.7 : The profit for the year of R.J. Ltd. works out to 12.5% of the capital employed and the relevant figures are as under :

Sales……	₹ 5,00,000
Direct Materials……	₹ 2,50,000
Direct Labour……..	₹ 1,00,000
Variable Overheads……	₹ 40,000
Capital Employed……	₹ 4,00,000

The new Sales Manager who has joined the company recently estimates for next year a profit of about 23% on capital employed, provided the volume of sales is increased by 10% and simultaneously there is an increase in Selling Price of 4% and an overall cost reduction in all the elements of cost by 2%.

Required :

FIND OUT by computing in detail the cost and profit for next year and state whether the proposal of Sales Manager can be adopted or not.

* * * * *

14 STANDARD COSTING AND VARIANCE ANALYSIS

MATERIAL COST VARIANCE

*Price Variance = Actual Qty. Consumed x (Std. Price – Actual Price)

*Some people prefer to calculate Material Price Variance as :

= Actual Qty. Purchased x (Std. Price – Actual Price)

However, in such case, the total of Price + Usage variance will not tally with Cost variance.

Use the above formula only when quantity of material purchased is given in the question.

PROBLEM NO. 1 :

S.V. Ltd. manufacturers BXE by mixing three raw materials. For every batch of 100 kgs. of BXE, 125 kgs. of raw materials are used. In April, 60 batches were prepared to produce an output of 5,600 kgs. Calculate all types of Material Cost Variances from the standard and actual particulars for April given below -

Raw Material	Standard		Actual		Qty. of Raw Material Purchased
	Mix	Price per kg	Mix	Price per kg.	
	%	Rs.	%	Rs.	Kg.
A	50	20	60	21	5,000
B	30	10	20	8	2,000
C	20	5	20	6	1,200

PROBLEM NO. 2 :

GAP Limited operates a system of standard costing in respect of one of its products which is manufactured within a single cost centre. Following are the details.

Budgeted data :

Material	Qty.	Price (₹)	Amount (₹)
A	60	20	1200
B	40	30	1200

Normal loss is expected as 20% of input.

Hence, from 100 units of input, we expect only 80 units of output.

Actual data :

Material	Quantity	Price (₹)	Amount (₹)
A	70	?	?
B	?	30	?

Actual output : 80 units

Material Price Variance of A : ₹ 105 (A)

Material cost variance : ₹ 275 (A)

You are required to CALCULATE :

(i) Actual Price of material A

(ii) Actual Quantity of material B

(iii) Material Price Variance

(iv) Material Usage Variance

(v) Material Mix Variance

(vi) Material Sub Usage Variance

PROBLEM NO. 3 :

Following data is extracted from the books of XYZ Ltd. for the month of January, 2020 :

(i) Estimation :

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material - A	800	?	?
Material - B	600	30.00	18,000
Total			?

Normal loss was expected to be 10% of total input materials.

(ii) Actuals : 1,480 kg of output produced from -

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material - A	900	?	?
Material - B	?	32.50	?
Total			59,825

(iii) Other Information :

Material Cost Variance = ₹ 3,625 (F)

Material Price Variance = ₹ 175 (F)

You are required to CALCULATE :

(i) Standard Price of Material A

(ii) Actual Quantity of Material B

(iii) Actual Price of Material A

(iv) Revised standard quantity of Material A and Material B and

(v) Material Mix Variance.

LABOUR COST VARIANCE

PROBLEM NO. 4 :

The following information relates to labour of X Ltd.

Types of Labour	Skilled	Semi Skilled	Unskilled	Total
No. of workers in standard gang	4	3	2	9
Standard rate per hour (Rs.)	6	3	1	-
Number of workers in actual gang				9
Actual wage rate per hour (Rs.)	7	2	2	-

In a 40 hours week, the gang produced 270 standard hours.

The actual number of semi-skilled workers is two times the actual number of unskilled workers.

The rate variance of semi-skilled workers is Rs. 160 (F).

Find the following :

(i) The number of workers in each category
(ii) Total gang variance
(iii) Total Sub-efficiency variance
(iv) Total labour rate variance
(v) Total labour cost variance

FIXED OH COST VARIANCE

PROBLEM NO. 5 :

ABC Ltd. has furnished the following information regarding the overheads for June, 2020 :

a. Fixed Overhead Cost Variance — Rs. 2,800 adverse
b. Fixed Overhead Volume Variance — Rs. 2,000 adverse
c. Budgeted Hours for June, 2020 — 2,400 hours
d. Budgeted Overheads for June, 2020 — Rs. 12,000
e. Actual rate of recovery of overheads — Rs. 8 per hour

From the above information, calculate -

1. Fixed Overhead Expenditure Variance
2. Actual Overheads Incurred
3. Actual hours for Actual Production
4. Fixed Overheads Capacity Variance
5. Fixed Overheads Efficiency Variance
6. Standard hours for Actual Production

MIXED PROBLEMS - ALL IN ONE

PROBLEM NO. 6 :

Paras Synthetics uses Standard costing system in manufacturing of its product 'Star 95 Mask'.

The details for each unit are as follows :

Direct Material (0.50 Meter @ ₹ 60 per meter)	₹ 30
Direct Labour (1 hour @ ₹ 20 per hour)	₹ 20
Variable overhead (1 hour @ ₹ 10 per hour)	₹ 10
Total	₹ 60

During the month of August, 2020 : 10,000 units of 'Star 95 Mask' were manufactured.

Actual details are as follows :

Direct material consumed 5,700 meters @ ₹ 58 per meter

Direct labour Hours ? @ ?	₹ 2,24,400
Variable overhead incurred	₹ 1,12,200

Variable overhead efficiency variance is ₹ 2,000 (A).

You are required to calculate the missing data and all the relevant Variances.

* * * * *

15 BUDGET AND BUDGETARY CONTROL

QUESTION ON MASTER BUDGET

Q.1 : Accountant of a manufacturing company provides you the following details for year 2020 :

Particulars	**₹**	**Particulars**	**₹**
Direct materials	1,75,000	Other variable costs	80,000
Direct Wages	1,00,000	Other fixed costs	80,000
Fixed factory overheads	1,00,000	Profit	1,15,000
Variable factory overheads	1,00,000	Sales	7,50,000

During the year, the company manufactured two products A and B and the details are :

Particulars	**A**	**B**
Output (units)	2,00,000	1,00,000
Selling price per unit	₹ 2.00	₹ 3.50
Direct materials per unit	₹ 0.50	₹ 0.75
Direct wages per unit	₹ 0.25	₹ 0.50

Variable factory overhead is absorbed as a percentage of direct wages. Other variable costs have been computed as : Product A ₹ 0.25 per unit; and B ₹ 0.30 per unit.

During 2021, it is expected that the demand for product A will fall by 25 % and for B by 50%. It is decided to manufacture a further product C, the cost for which is estimated as follows :

Particulars	**Product C**
Output (units)	2,00,000
Selling price per unit	₹ 1.75
Direct materials per unit	₹ 0.40
Direct wages per unit	₹ 0.25

It is anticipated that the other variable costs per unit will be the same as for product A.

PREPARE a Master Budget, showing the current profit position and the profit position for 2021.

Comment on the comparative results.

QUESTION ON FUNCTIONAL BUDGET

Q.2 : A company is engaged in the manufacture of specialised sub-assemblies required for certain electronic equipment. The company envisages that in the forthcoming month, December, 2020, the sales quantity will be in the ratio of 3 : 4 : 2 respectively of sub-assemblies, ACB, MCB and DP. The following is the schedule of components required for manufacture :

Particulars		**Component requirements (Qty.)**			
Sub - assembly	**Selling price**	**Base board**	**IC08**	**IC12**	**IC26**
ACB	520	1	8	4	2
MCB	500	1	2	10	6
DP	350	1	2	4	8
Purchase price (₹)		60	20	12	8

The direct labour time and variable overheads required for each of the sub-assemblies are :

Sub - assembly	**Labour Hours**		**Variable OH**
	Grade A	**Grade B**	**(₹)**
ACB	8	16	36
MCB	6	12	24
DP	4	8	24
Direct wage rate per hour (₹)	5	4	--

The labours work 8 hours a day for 25 days a month.

The opening stocks of sub-assemblies and components for December, 2020 are as under :

Sub - assembly (units)		**Components (units)**	
ACB	800	Base board	1,600
MCB	1,200	IC08	1,200
DP	2,800	IC12	6,000
		IC26	4,000

Fixed overheads amount to ₹ 7,57,200 for the month and a monthly profit target of ₹ 12 lakh has been set. The company is eager for a reduction of closing inventories for December, 2020 of sub-assemblies and components by 10% of quantity as compared to the opening stock.

PREPARE the following budgets for December 2020 :

(a) Sales budget in quantity and value.

(b) Production budget in quantity.

(c) Component usage budget in quantity.

(d) Component purchase budget in quantity and value.

(e) Manpower budget showing the number of workers and the amount of wages payable.

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CA Intermediate (New Syllabus)
Cost & Management Accounting

Errors in New Module of ICAI (October, 2020 edition)

Dear Student Friends,

First of all, I must congratulate ICAI for constantly striving hard to make further improvements in study material and trying to make it error free. But, the TQM principle says that "There is always a scope for improvement". Hence, this effort ...

After going through the new module released by ICAI in October, 2020; I noticed certain errors like : (a) Printing errors (b) Calculation errors (c) Conceptual errors (d) Grammatical errors and (e) Differences of opinion etc.

I am doing correspondence with BOS, ICAI about it. After a lot of efforts, they acknowledged only the receipt of my email and promised me that they will look in to the matter. I have offered them my full support to make the module error free. Faculty members at BOS of ICAI will take its own sweet time to understand my point of view and then they may come out with the 'Corrigendum to study material' in due course of time.

Till that time, you will also try to compare my views and ICAI views from the new study material. If you find that my point of view is valid, then you should also write an email to BOS, ICAI at this email address : **cma-inter@icai.in**

Please remember that you will not get any response or acknowledgement from ICAI. But still do it. When lot of students write an email about the same thing to ICAI, then only it makes the impact. Hence, students unity is important.

One more purpose of preparing the following table of errors is that - when the students compare what a faculty has taught in the classroom with what is written in the module, then they get fully confused. The table below will help you to minimise such confusion and will improve your conceptual understanding of the subject.

Your personal views, suggestions and feedback are always welcome for making further improvement. You may personally write to me on my email : **ngp.rakesh@gmail.com**

Please go through the following table very carefully and not casually. Sit with the new study material and try to understand both points of view. It is possible that, I might have also made an error somewhere. I am ready to accept and correct it. Please bring it to my notice using the above email address. I would also request BOS, ICAI to enrich / correct me if my views are wrong. I would love to remove some of my misconceptions or wrong notions.

I hope my efforts will help students community as well as ICAI in doing rectification of errors.

CA Rakesh Agrawal, Pune

S.N.	Module Page No.	ICAI Views and My Views
	Chapter 1 - Introduction to Cost & Management Accounting :	
1.	1.6	1.2.1 : Difference between cost control and cost reduction ICAI View : At point no. 4, it is mentioned that Cost Control is a **preventive** function and Cost Reduction is a **corrective** function. My View : Cost Control is a **corrective** function, because we first identify the errors and then we correct it like standard costing technique. Cost Reduction is a **preventive** function, because it is an innovative solution, which will help us to reduce future costs.
	Chapter 2 - Material Cost :	
2.	2.13	Point no. (xvii) Shortage : It is mentioned in the module that breaking of bulk quantity is a shortage due to normal reason. My View : Breaking of bulk, means breaking of huge quantity and not a small quantity. It may happen only due to accident or careless handling of material. I think, it should be treated as abnormal loss.
3.	2.24	Point no. (vii) Buffer Stock : In the module, Danger level and Buffer stock are written separately. My View : In my opinion, both are same i.e. Danger level = buffer stock.
4.	2.34	Solution of Illustration 8 : In the module, cumulative total of no. of **units** of each item is taken to calculate the % of total units for ABC analysis. My View : The total of no. of **items** should be taken and not no. of units of each item. There are total 12 varieties of items and hence each item is 8.33% of the total no. of items. The units are given for multiplying it by unit cost, so that we can calculate the total value of consumption during the year. It is possible that some of the **items** may be measured in number of units, some are measured in kgs., some in litres, some in meters etc. How, one can take the total of these quantities? However, ICAI module has done it correctly in illustration 9 but not in illustration 8. Difference in their own approach.
5.	2.59	Solution of Illustration 14 : The module has treated material issued between two requisition dates as material consumed during that period. And based on this, the speed of consumption i.e. usage rate is calculated. My View : Material issued is not necessarily the material consumed. It is possible to issue material to one department on one date and to another department on another date. There might be a sock lying out of material issued to a particular department. Due to the above error in assumption by ICAI, all the answers calculated are either wrong or illogical. For example - Reorder level is higher than Maximum stock level. Minimum stock level as per the formula is 42,000 units, whereas if you check the balance stock in 'Stores Ledger', then you will notice that the stock level is constantly below the Minimum level and fresh order is never given at Reorder level. Everything seems difficult to justify and convince. Suggestion : Either delete this question from module or provide the information regarding usage rates.

S.N.	Module Page No.	ICAI Views and My Views
6.	2.70	MCQ No. 3 : ICAI answer is (c) My View : The answer should be (b) i.e. Pilferage.
7.	2.71	MCQ No. 10 : ICAI answer is (b) My View : The answer should be (a) If material is issued from stores to production process, then we use Material Requisition Note. However, when we transfer the material between the two process, we use Material Transfer Note.
8.	2.80	Answer of Q.5(a) : No. of orders are rounded off to higher side to calculate the 'Ordering Cost of Inventory'. The justification is also given below the table that the orders cannot be in decimals. My View : It is true that the orders cannot be in decimals. However, 'Ordering Cost' is to be calculated on accrual basis of one year only. For example - if order size is 2,000 units, then we will place 3 orders of 2,000 units each = 6,000 units in total. However, we will consume only 5,000 units in one year and balance 1,000 units in the next year. Hence, cost of only 2.5 orders should be considered in one year, using accrual concept. The fraction order is correct for cost calculation purpose only. Practically, we will not give fraction order. Self conflict : There is similar concept of EBQ in 'Batch Costing'. On page 8.13, the solution of illustration 7 is given. In this table, Set-up cost p.a. is calculated correctly by considering no. of batches in fraction.
	Chapter 3 - Employee Cost / Labour Cost :	
9.	3.20	Solution of illustration 4 : Error in calculation of Worker B & C. ICAI View : It is mentioned in the question that if a worker works on Saturday, he will get 8 hours wages for 4 hours of work. Worker B & C, both have worked for 8 hours each on Saturday. However, it is treated differently for worker 'B' and differently for worker 'C'. Similarly, Dearness Allowance is calculated in terms of rate per hour and then added to basic wage rate per hour. Then it is multiplied by total normal hours, which includes overtime (double) hours. In this way, the DA got paid for overtime hours at double rate, because overtime is counted twice in the normal hours. In absence of specific information about calculation of DA, it is a matter of debate. My View : For Saturday working of 8 hours, either pay basic wages at double rate or count it as 16 normal hours. The question should provide some information about payment of DA on overtime hours.
10.	3.38	3.10.1 : Need for efficiency rating : ICAI View : In point no. 1, reference of Taylor's differential piece work system and Emersion efficiency plan is given. However, these payment methods are already deleted from the syllabus. My view : If any method is deleted from the syllabus, then its reference can confuse a student, because they don't know anything about it.

S.N.	Module Page No.	ICAI Views and My Views
11.	3.40	(iii) Flux Method : It is a long time observation, that there are two formulae in use to calculate the labour turnover ratio using Flux Method. It is observed that, in the suggested answers, sometimes ICAI uses first formula and sometimes second formula. My view : Please keep only one formula to avoid confusion.
12.	3.48	MCQ No. 3 : Choice (b) is wrongly printed as Personal department. It should be Personnel department.
13.	3.49	MCQ No. 5 : Answer for this question is given as (d). In my opinion, the answer should be (a).
14.	3.49	MCQ No. 6 : Answer for this question is given as (d). In my opinion, the answer should again be (a).
15.	3.50	MCQ No. 11 : Answer for this question is given as (b). It is correct. But, the wordings of the question is : physical and behavioural traits. In my opinion, the wordings of the question should be : physical and biological traits.
	Chapter 4 - Overheads - Absorption Costing Method :	
16.	4.17	Method of Re-apportionment : For Reciprocal services, there are three methods given in the module i.e. (a) Simultaneous equation method (b) Trial & error method and (c) Repeated distribution method. My view : Actually, the calculation procedure of Trial & error method and Repeated distribution method is exactly the same. These are the two names of same method and not two separate methods.
17.	4.36	Computation of machine hour rate : While doing the calculation of insurance premium, 1% premium is calculated on Rs. 91,00,000; which is original cost less scrap value. My view : Insurance premium is generally based on original cost and not on (cost minus scrap value). Cost minus scrap value is used for calculation of depreciation and not insurance.
18.	4.40 7.12 7.15 7.24	Treatment of under / over absorption of overheads in cost accounting : There are two method given to deal with this situation. In the old syllabus module, there was third method also i.e. carry forward of under / over absorption of overheads to next period. This third method is now deleted from this new syllabus module. My view : The above change is welcome. But then, the carry forward of overheads should also be deleted from the Chapter 7 : Cost Accounting System. If you refer answer of illustration 1 on Page 7.12 of the module, then you will notice that in "Manufacturing Overhead Control Account' the opening balance of OH is also taken and closing balance is also carried forward to next period. Same thing is again repeated in the answer of illustration 2 on page no. 7.15 & 7.16 in Overhead Accounts. On page no. 7.24, see the * note below Production Overhead Control Account. It says that we may carry forward over absorbed overheads. In my opinion, the treatment of under/over absorption of overheads should be uniform in both the chapters.

S.N.	Module Page No.	ICAI Views and My Views
19.	4.55 7.29	Treatment of certain items in costing : (i) Interest and financing charges - It is mentioned that "it shall be presented in the cost statement as a separate item of cost of sales". My view : If it is treated as an item of cost of sales, then it will reduce the operating profit as per cost sheet. However, interest and financing charges are not considered in calculation of profit as per cost records in Chapter 7. This item generally appears in the reconciliation statement. On page 7.29 point no. 7.4.1 - Items included in financial accounts only - interest on loan is mentioned in the list of such items. But, in chapter 4, it is included in cost sheet also. Please keep a uniform approach at both the places to avoid confusion.
20.	4.59	MCQ No. 2 : The answer given is (c). For this answer to be correct, the wordings of the question should be corrected. The question says 'idle capacity of plant'. My view : It should be 'installed capacity of plant'.
21.	4.59	MCQ No. 6 : The answer given is (c). My view : Generally, depreciation is calculated on time basis and it is treated as 'Fixed Cost' in CVP analysis. Hence, the answer should be (a) and not (c). However, if depreciation is calculated on the basis of 'Machine Hour Rate Method', then it will become variable cost.
22.	4.60 7.38	MCQ No. 7 : The answer given is (c). In my view it is wrong. My view : Though there might be a difference of opinion about the accounting treatment of 'Baddebts', the general view is to ignore it in the cost records and consider only in financial records. This view is supported by the treatment of bad debts in Chapter 7. If you refer solution of illustration 8 on page no. 7.38, then bad debts are shown in the reconciliation statement and ignored in cost sheet. There should be a uniformity in approach in both the chapters.
23.	4.61	MCQ No. 10 : The answer given is (d). My view : The accurate method depends upon the factor which drives the cost. In different industries, the cost driver would be different. We cannot generalise it and say that Machine hour rate method is most accurate. On the contrary, 'Activity Based Costing Method' may be said as more scientific and accurate.
	Chapter 5 - Activity Based Costing :	
24.	5.12	Table No. 3 : Data on cost drivers was as follows: There is a typing error. Instead of 'Number of machine operators', it should be 'Number of machine operations'.
25.	5.21	The Table at the beginning itself, where the following is written : Y : 3 hours @ ₹ 150 per hour and X : 4 hours @ ₹ 150 per hour There is a typing error. Instead of 'X', it should be 'Z'.

S.N.	Module Page No.	ICAI Views and My Views
26.	5.36	Paragraph just below the table at the beginning There is a typing error. Instead of 'The number of machine operators per unit', it should be 'Number of machine operations per unit'.
27.	5.39	In the table titled as 'Cost Driver Rates' - In the column of Cost Pool, the last wordings are 'Machine Hours'. There is a typing error. Instead of 'Machine Hours', it should be 'Machine operation'. The cost driver is correct i.e. machine hours. But cost pool is wrong.
	Chapter 6 - Cost Sheet :	
28.	6.4	(iii) Direct Expenses : Point (a) Cost of utilities such as power & fuel, steam etc. is shown under 'Direct Expenses' head. My view : It is very difficult to co-relate power, fuel and steam cost with each unit produced. Because, the utility bills are generally received for the entire organisation and not for each machine. Hence, cost of utilities should be put under the head 'Production Overheads'.
29.	6.9	6.4.2 : Treatment of various items of cost in cost sheet : Point no. (iv) Interest and other finance cost - This matter is already discussed above in detail for uniformity in approach. If it is to be shown in cost sheet in Chapter 6, then in Chapter 7, it should not form part of Reconciliation Statement.
30.	6.17 7.38	Solution of illustration 3 : Treatment of fees paid to legal advisors. This cost is shown under the head 'Administrative Overheads' in the cost sheet. My view : If it is to be shown in cost sheet in Chapter 6, then in Chapter 7, it should not form part of Reconciliation Statement. On page 7.38, the item 'Legal Charges' is shown in reconciliation statement, which means, it is not an item of cost. Uniformity in approach is lacking.
	Chapter 7 - Cost Accounting System :	
31.	7.7	Journal Entry no. (m) for Carriage Inward It is debited to Production Overhead Control A/c My view : Carriage inward is a part of purchase expenses i.e. a part of landed cost and it is added to the purchase cost of material as mentioned in Chapter 2 : Material Cost. Just to maintain the uniformity in approach, it should also be treated here as part of material cost and 'carriage inward' should be debited to 'Stores Ledger Account' instead of Production Overhead A/c.
32.	7.23	Illustration 4 : While asking the question 'Required' i.e. prepare the following accounts for the month : at point no. (e) Costing Profit & Loss Account is mentioned. My view : This question is based on 'Integrated Accounting System'. Under integrated accounting system, we don't prepare 'Costing Profit & Loss Account'. It should be just a 'Profit & Loss Account'. 'Costing Profit & Loss Account' is prepared under 'Non-integrated Accounting System'.

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33.	7.25	Notes : (1) Non-production time of direct workers is a production overhead. My view : The reasoning for non-production time (i.e. idle time) is important. Alternatively, if it is assumed as Abnormal idle time, then it may directly be debited to 'Profit & Loss Account'. This alternative treatment should also be mentioned in the notes. Just like note (4), where excess credit balance in WIP A/c is treated as abnormal gain and transferred to 'Profit & Loss Account'.
34.	7.35	Solution of illustration 7 : In the Profit & Loss A/c, on credit side - 'Closing Finished Goods' worth Rs. 37,000 is written. My view : It is a typing error and it should be 'Closing stock of Raw Material'.
35.	7.36	In illustration 8 : General administrative overheads ₹ 7,00,000 is given. General administration cost should be added in the calculation of cost of sales along with selling & distribution overheads. However, on page 7.37, if we refer the Cost Sheet, it is calculated on finished goods produced i.e. (1,24,000 units @ ₹ 6 p.u.). My view : It should either be calculated on the basis of goods sold i.e. (1,20,000 units @ ₹ 6 p.u.). Else, it should be treated as 'Production Related Administration Cost' and then to be taken in the calculation of Cost of Production.
36.	7.38	7.5 : Accounting for Management Information & Cost Control : Under this heading, some information about Single Plan & Partial Plan is given. It is of no use here and should be deleted completely. My view : This matter is related to 'Standard Costing' topic and it was present in the old syllabus of CA Final Costing (AMA). It requires in depth understanding of Standard Costing & Cost Leger Accounting. I feel just 3 pages of theory notes is insufficient to understand this concept and it is irrelevant for CA Inter students, hence to be dropped.
37.	7.42	MCQ No. 2 : ICAI answer is (c). My view : It should be (b). Because, in non-integrated accounts i.e. in cost ledger accounting notional cost may be considered. It is not considered in financial accounting. Please refer the theory on page no. 7.29 at the bottom, point no. 2 about notional expenses.
38.	7.49	Q.5 : You are required to : Point no. (b). It is mentioned that indirect expenses are absorbed on the basis of normal production capacity. My view : Only **fixed** overheads are charged on the basis of normal production capacity and not all the overheads. It can be seen in the solution also. Hence, the wordings of the question requires modification to avoid confusion.
39.	7.57	Answer of Q.4 : Interest on borrowed funds is shown separately. However, in Chapter 1 and Chapter 7, it was mentioned that interest should be added in 'cost of sales'. My view : Please make the treatment of 'interest' uniform at all places.

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40.	7.58	Solution of Q. 4 : In the cost sheet, administration expenses are considered along with selling & distribution expenses. My view : This treatment is correct only if the administration expenses are general in nature or related to sales. The question is silent about the type of administration expenses, whether production related or general? It should be specified clearly in the question itself.
	Chapter 8 - Unit and Batch Costing :	
41.	8.10	Table at the beginning itself - Column no. 2 - the title is 'Chargeable Expenses'. My view : It should be 'Overheads'. Because, chargeable expenses means direct expenses, which is a part of Prime Cost.
42.	8.12	Illustration 6 : Point no. (iii) Find out the minimum inventory cost? My view : It should be either specified as 'Total Inventory Carrying Cost' or 'Total Inventory Management Cost' i.e. Carrying cost + Set up cost together. The wordings of the question are confusing.
43.	8.19	Q. No. 4 : While providing the information about production cost, it is not mentioned whether the cost is 'Total' or 'Per Unit'. My view : It should be specified to avoid confusion.
	Chapter 9 - Job and Contract Costing :	
44.	9.8	9.4 : Accounting of Cost for a Job Journal entries are given here again, which is already covered in Chapter 7. It was not required here. If at all, it is to be given here, then the entries should be related to 'Subsidiary Books' and not the 'Consolidated Books'. For example - Material issued to job is debited to WIP A/c. My view : It should be debited to 'Job Account' in subsidiary books and WIP A/c in consolidated books / control records.
45.	9.9	Solution of illustration 1 : The journal entry seems to be wrong. My view : Rs. 2,000 realised should be debited to 'Cost Ledger Control Account' instead of 'Material Control Account'.
	Chapter 10 - Process & Operation Costing :	
46.	10.21	Check this line in the answer : Less : Scrap value of normal loss (₹ 1 x 1,100 units) There is a printing error. It should be : (₹ 10 x 1,100 units)
47.	10.24	Solution to illustration 6 : Valuation of WIP is done using 'Average Cost Method' however, valuation of finished goods is done using 'FIFO' method. It is technically wrong and we should follow a uniform approach for valuation of WIP & FG both. My view : The reason given is that in the question, it is mentioned that "Finished stock is valued at the price at which it is received from process II". The correct interpretation of this sentence is that valuation of FG is to be done before adding any other cost of FG department.

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48.	10.27	MCQ No.6 : The answer given is (c) My view : There are two correct answers here i.e. (a) & (c).
49.	10.27	MCQ No.8 : The answer given is (c) My view : There are two correct answers here i.e. (b) & (c).
50.	10.27	MCQ No.9 : The question itself is wrong.
51.	10.28	MCQ No.10 : The question itself is wrong or choices are wrong.
52.	10.29	MCQ No.14 : The answer given is (b) My view : The answer should be (a)
	Chapter 11 - Joint Products & By Products :	
53.	11.6	(ii) Net Realisable Value at Split off point method - ICAI view : The steps given to calculate NRV = Final Sale Value - Estimated profit margin - S&D expenses - Post split off costs My view : The above steps are taken from 'Reverse Cost Method'. Actually, NRV = Final Sale Value - S&D expenses - Post split off costs NRV should **not** be treated as equal to Reverse cost method. I would recommend ICAI to re-introduce 'Reverse Cost Method' again in the syllabus.
54.	11.9	(iii) Average unit cost method - If we study this method carefully, we find that it is exactly same as 'Physical Units Method' i.e. Quantity based method. My view : 'Average unit cost method' should **not** be projected as a separate method but it is just another name for 'Physical Units Method'.
55.	11.18	MCQ No.3 : The answer given by ICAI is (d) My view : The answer should be (c)
56.	11.22	In the table at the beginning of the page, at 3rd line - 'Process costs' is written with some figures ahead. Actually, it is 'Further Processing Cost' in my view. It needs a correction to avoid confusion.
57.	11.28	Solution of Q.4 : The question clearly says that apportion the joint cost on the basis of NRV. However, the solution developed is not in line with the requirement of question. My view : Apportionment of joint cost has nothing to do with the decision of 'Further Processing'. These two are independent. Secondly, I feel that the data given in this question itself is wrong. Because, the organisation suffers loss irrespective of the decision of further processing or not. This view can be substantiated by looking at the answer of Q.2 on page no. 11.25. In this question 2, the allocation of cost is based on NRV, irrespective of the decision of further processing; which is correct. NRV is correctly calculated here as Sale value - post separation cost. However, it is wrongly explained on page no. 11.6. This inconsistency should be removed.

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	Chapter 12 - Service Costing :	
58.	12.16	Illustration 5 : The wordings of the question are not conveying the correct meaning, it is vague. It is assumed that the cities A, B & C are located in a straight line and it doesn't form a triangle. The calculation of answer is not understandable or it is wrong. My view : Please revisit the question as well as answer to make it more clear and understandable.
59.	12.24	Illustration 8 : It should be shifted to 'Marginal Costing' chapter. Because, it requires calculation of BEP, which is not covered here.
60.	12.38	Illustration 11 : In the table at the beginning of the page, in the second line it is stated - 'Time spent at library per student per year'. My view : It should be 'Total Time spent at library per year'. Otherwise, for apportionment of library related cost, we need to take the basis as (time spent by each student x no. of students). Either correct the wordings of the question or change the basis for apportionment.
61.	12.52	Q.1 : Below the first table, there is a line which says - 'An **average** cost of ₹1,120 lakh has to be ....' My view : The word 'Average' is confusing here. Because, while solving the question, it is treated as **total** cost of 25 years. Please correct this anomaly.
62.	12.54	Q.4 : In the last line of the question, the sentence should be "5kWh of electricity ....." Due to printing error, it is visible as Q.5.
	Chapter 13 - Standard Costing :	
63.	13.19	Illustration 3 : The last line of the question says - "Calculate **all** material variances". My view : All variances include - (a) Material Mix Variance and (b) Material Yield Variance also. But it is not calculated in the solution.
64.	13.21	Please consider the flowchart of Labour Cost Variance on this page and on page no. 13.13. This variation in presentation is acceptable to faculty but not to the students. Because, due to this change in presentation, there is a slight change in the formula of 'Labour Efficiency Variance'. My view : To avoid unnecessary confusion, it is suitable to keep a uniform approach and formula.
65.	13.38	Illustration 9 : The data in the question is wrong or non properly given. The actual overheads data is mixed i.e. Fixed + Variable OH. It should be provided separately for calculation of correct answers. The solution of Variable Overhead Expense Variance is wrong. How the 'Actual Rate' is calculated? It is not explained in solution. The solution of Fixed Overhead Expense Variance is also wrong. How the 'Actual Variable OH' is calculated? It is calculated using standard rate and not actual rate. My view : Either this question should be withdrawn or it should be modified to make it more meaningful.

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	Chapter 14 - Marginal Costing :	
66.	14.24	Solution of illustration 6 : The way of calculation and presentation of BEP is confusing and not understandable. My view : The simple way is to calculate overall P/V Ratio, which comes to 40% and then BEP can be calculated as 5,000/40% = 12,500
67.	14.34	14.13.4 : Short term decision making using concepts of CVP analysis. Under this heading, only one line sentences are written about the types of short term decisions. My view : If one practical question on each decision making topic is included in the module, then it would be much better for students.
68.	14.36	Illustration 11 : In part (ii) of the question, sales mix ratio of X : Y is given as 7 : 3. My view : The sales mix ratio is for Quantity or Value? It should be made clear in the question itself, to avoid confusion.
69.	14.40	14.14 : Distinction between Marginal and Absorption Costing : It is silent about the treatment of "Administrative Overheads related to Production Activity'. It is also silent about the treatment of variable administration overheads.
70.	14.43	In the table at the beginning of the page, i.e. 'Income Statement (Absorption Costing)' - Under / Over absorption of fixed manufacturing overheads is shown as addition / deletion. My view : If after absorption of manufacturing overheads at a pre-determined rate in the cost sheet, we adjust the under / over absorption of overheads again, then it is as good as charging full overheads in the cost sheet. In such case, there will not be any difference in the treatment of 'Fixed manufacturing overheads' as per Absorption costing and as per Marginal costing. Ref. solution (c) on page no. 14.45 On the contrary, in my opinion, the under / over absorption of overheads should form part of reconciliation statement of profit between Absorption costing and as per Marginal costing.
	Chapter 15 - Budgets & Budgetary Control :	
71.	15.45	In illustration 5 : In the first paragraph, sales mix ratio of 3 : 4 : 2 is given. However, whether it is a ratio of Sales Qty. or Sales Value is not mentioned. My view : Mentioning the sales mix ratio in Qty. or Value clearly in the question will avoid confusion in interpretation.
72.	15.45	In illustration 5 : In table no. 2, there is some printing error in the heading. Labour Hours and Variable Overheads got mixed. Similarly, overheads are to be expressed in ₹ to avoid possible error.

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हार नहीं होती

लहरों से डरकर नौका पार नहीं होती,
कोशिश करने वालों की कभी हार नहीं होती ।।

नन्हीं चींटी जब दाना लेकर चलती है,
चढती दिवारों पर सौ-सौ बार फिसलती है।
मन का उत्साह, रगों में साहस भरता है,
चढकर गिरना, गिरकर चढना न अखरता है।
आखिर उसकी मेहनत बेकार नहीं होती,
कोशिश करने वालों की कभी हार नहीं होती।।

डुबकियाँ सिंधु में गोताखोर लगाता है,
जा-जाकर खाली हाथ लौटकर आता है।
मिलते न सहज ही मोती गहरे पानी में,
बढता दुना उत्साह इसी हैरानी में।
मुट्ठी उसकी खाली हर बार नहीं होती,
कोशिश करने वालों की कभी हार नहीं होती।।

असफलता एक चुनौती है, स्वीकार करो,
क्या कमी रह गयी, देखो और सुधार करो।
जब तक सफल न हो, नींद चैन की त्यागो तुम,
संघर्षों का मैदान छोड़ मत भागो तुम।
कुछ किये बिना ही जय-जयकार नहीं होती,
कोशिश करने वालों की कभी हार नहीं होती।।