

1. COST SHEET

NO. OF PROBLEMS IN 41E OF CA INTER: CLASSROOM – 07, ASSIGNMENT – 02

NO. OF PROBLEMS IN 42E OF CA INTER: CLASSROOM – 06, ASSIGNMENT – 05

NO. OF PROBLEMS IN 43E OF CA INTER: CLASSROOM – 08, ASSIGNMENT – 08

MODEL - WISE ANALYSIS OF PREVIOUS EXAMINATIONS

No.	Model Name	M - 11	N - 11	M - 12	N - 12	M - 13	N - 13	M - 14	N - 14	M - 15	N - 15	M - 16	N - 16	M - 17	N - 17	M - 18(O)	M - 18(N)	N - 18(O)	N - 18(N)	M - 19(O)	M - 19(N)	N-19(N)	N-19(O)
1.	COST SHEET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	10	-	10	10	-

SIGNIFICANCE OF EACH PROBLEM COVERED IN THIS MATERIAL

Problem No. in this material	Problem No. in new SM	Problem No. in old SM	Problem No. in old PM	RTP	MTP	PQ	Previous Exams	Remarks
CR-1	ILL-2	-	-	-	-	-	-	-
CR-2	-	-	-	M18(N)	-	-	-	-
CR-3	-	-	-	M19(N)	-	-	-	-
CR-4	-	-	-	-	NOV19(N)	-	M18(N)	-
CR-5	PQ-1	-	-	-	-	-	-	-
CR-6	-	-	-	-	-	-	M19(N)	-
CR 7								
CR 8				N19(N)				
ASG - 1	ILL-1	-	-	-	-	-	-	-
ASG - 2	-	-	-	-	M19(N)	-	-	-
ASG - 3	-	-	-	-	-	-	-	-
ASG - 4	-	-	-	NOV19(N)	-	-	-	-
ASG - 5	-	-	-	-	-	-	-	-
ASG-6	SIMILAR PQ-1							
ASG-7	-	-	-	-	-	-	-	-
ASG-8	-	-	-	-	-	-	-	-

A Cost Sheet or Cost Statement is a document which provides detailed cost information. In a typical cost sheet, cost information are presented on the basis of functional classification. However, other classification may also be adopted as per the requirements of users of the information.

Generally, for the purpose of cost sheet preparation, costs are classified on the basis of functional classification of elements of cost i.e.,

- i) Direct Material Cost
- ii) Direct Employee (labour) Cost
- iii) Direct Expenses
- iv) Production/ Manufacturing Overheads
- v) Administration Overheads
- vi) Selling Overheads
- vii) Distribution Overheads
- viii) Research and Development costs etc.

COST SHEET / STATEMENT

	Particulars	Total Cost (Rs.)	Cost per unit (Rs.)
1	Direct materials consumed:		
	- Opening Stock of Raw Material	Xxx	
	- Add: Additions/ Purchases	xxx	
	- Less: Closing stock of Raw Material	(xxx)	
		xxx	
2	Direct employee (labour) cost	xxx	
3	Direct expenses	xxx	
4	Prime Cost (1+2+3)	xxx	
5	Works/ Factory Overheads	xxx	
6	Gross Works Cost (4+5)	xxx	
7	Add: Opening Work in Process	xxx	
8	Less: Closing Work in Process	(xxx)	
9	Works/ Factory Cost (6+7-8)	xxx	
10	Quality Control Cost	xxx	
11	Research and Development Cost	xxx	
12	Administrative Overheads (relating to production activity)	xxx	
13	Less: Credit for Recoveries / Scrap / By-Products / Misc. income	(xxx)	
14	Add: Packing cost (primary)	Xxx	
15	Cost of Production (9+10+11+12-13+14)	xxx	
16	Add: Opening stock of finished goods	xxx	
17	Less: Closing stock of finished goods	xxx	
18	Cost of Goods Sold (15+16-17)	xxx	
19	Add: Administrative Overheads (General)		
20	Add: Marketing overheads		
	- Selling Overheads	xxx	
	- Distribution Overheads	Xxx	
21	Cost of Sales (18+19+20)	xxx	

Advantages of cost sheet or cost statement:

The main advantages of a Cost Sheet are as follows:

- It provides the total cost figure as well as cost per unit of production.
- It helps in cost comparison.
- It facilitates the preparation of cost estimates required for submitting tenders.
- It provides sufficient help in arriving at the figure of selling price.
- It facilitates cost control by disclosing operational efficiency.

ITEMS OF PURE FINANCE

1. **TREATMENT:** Ignore

2. **MEANING:**

- Any expenditure incurred in connection with raising & serving the capital. (E.g. public issue expenses, dividend, interest).
- Any expenditure/loss incurred in connection with collection of debtors. (E.g. discount, bad debts, provision for bad debts).

NON COST RELATED ITEMS:

1. **TREATMENT:** Ignore

2. **MEANING:** Expenses having no direct or indirect relationship with production.

3. **E.G.'s:** Write off's (like Goodwill written off), Capital losses/profits, Appropriation of profits (like transfer to reserve, dividends paid) , Income Tax (Income tax paid, Advance tax, TDS, Provision for tax, Income tax refund, Interest on refund), Donations etc.

QUALITY CONTROL COST: This is the cost of resources consumed towards quality control procedures.

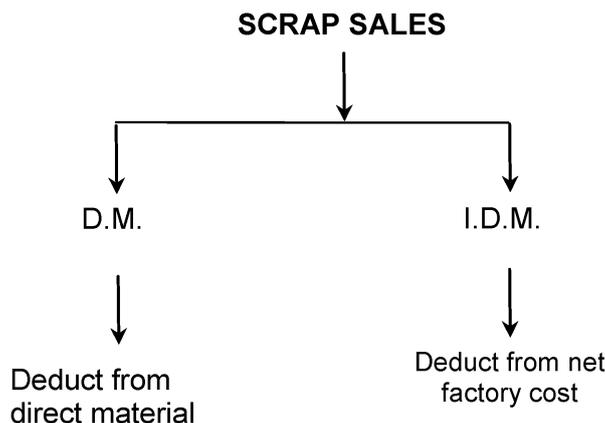
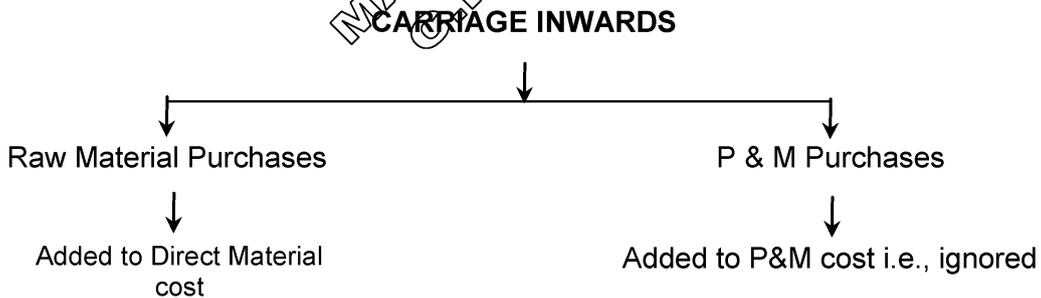
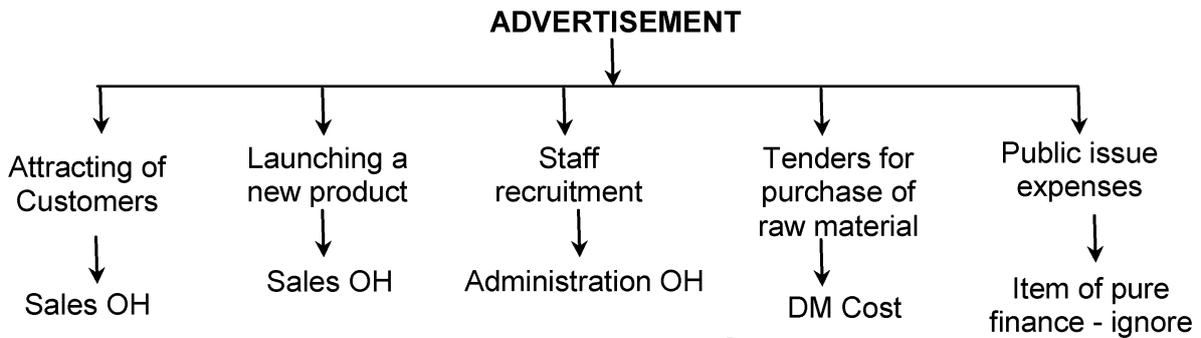
Example: A manufacturer has set-up a lab for testing of products for compliance with standards, salary of this lab staffs are part of Quality Control Cost

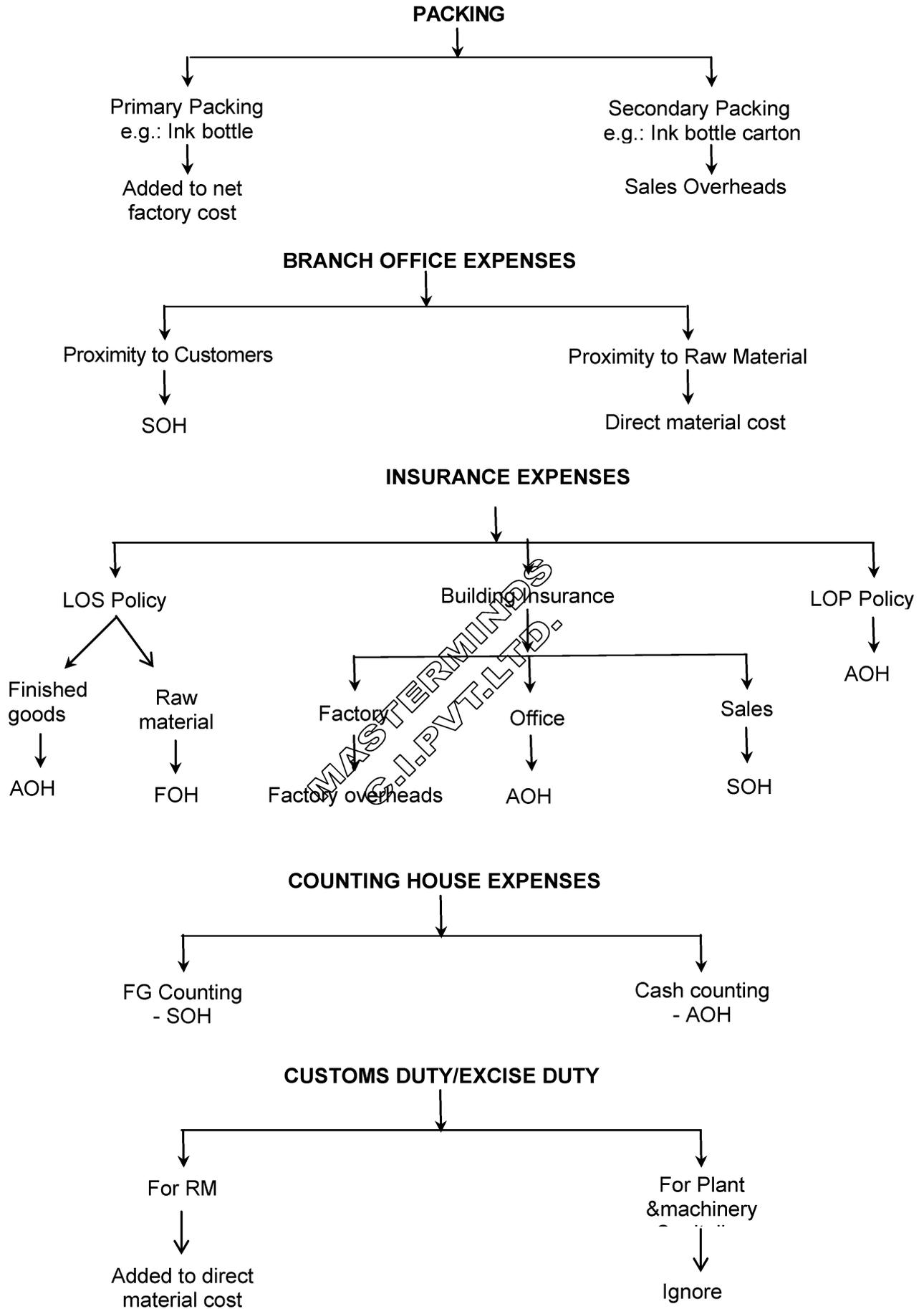
RESEARCH AND DEVELOPMENT COST: It includes only those researches and development related cost which with is incurred to improvement of process, system, product or services.

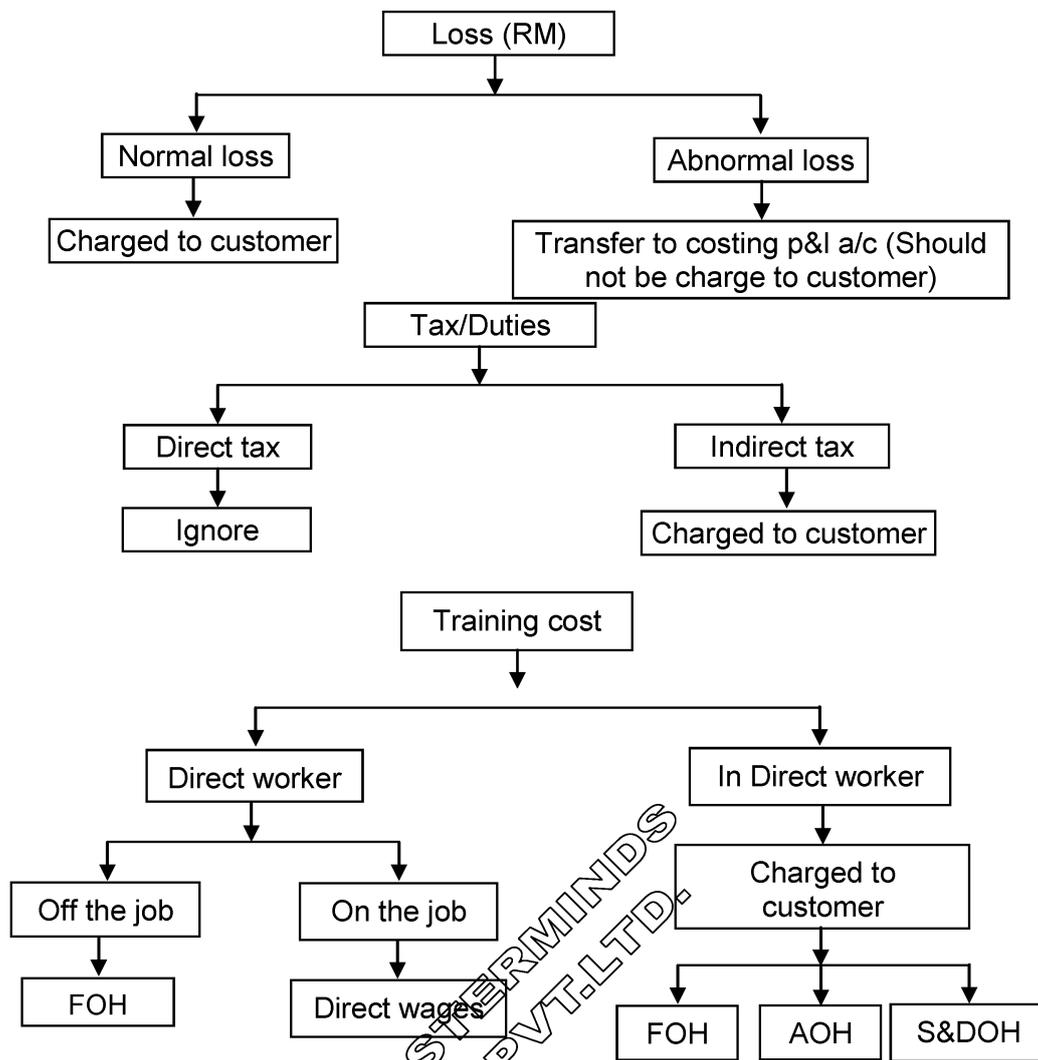
CREDIT OF RECOVERIES: The realized or realizable value of scrap or waste is deducted.

PACKING COST (PRIMARY): Packing material which is essential to hold and preserve the product for its use by the customer.

TREATMENT OF VARIOUS EXPENSES







PROBLEMS FOR CLASS ROOM DISCUSSION

PROBLEM 1: The following information has been obtained from the records of ABC Corporation for the period from June 1 to June 30, 20X8.

	On June 1, 20X8 (Rs.)	On June 30, 20X8 (Rs.)
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' 20X8		4,80,000
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

Prepare a statement giving the following information:

- a) Raw materials consumed;
- b) Prime cost;
- c) Factory cost;

- d) Cost of goods sold; and
e) Net profit.

Concept questions:

- a) What is the sale value, if it requires a profit of 20% on sales?
b) What is the sale value, if it requires a profit of 10% on cost?

(A) (NEW SM) (ANS.: (A) RAW MATERIALS CONSUMED = 4,90,000 ; (B) PRIME COST = 7,30,000; (C) FACTORY COST = 8,27,000; (D) COST OF GOODS SOLD = 8,57,000; (E) NET PROFIT = 1,18,000)

(SOLVE PROBLEM NO. 1 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

PROBLEM 2: VIPUL LTD. submits the following information on 31st March, 2019:

Particulars	Amount (Rs.)
Sales for the Year	55,00,000
Purchases of material for the year	22,00,000
Direct Labour	13,00,000
Inventories at the beginning of the year	
Finished Goods	1,40,000
Work-in-Progress	80,000
Materials Inventory	
At the beginning of the year	60,000
At the end of the year	80,000
Inventories at the end of the year	
Work-in-Progress	1,20,000
Finished Goods	1,60,000

Factory Overheads were 60% of the direct labour cost.

Administration expenses were 5% of sales.

Selling & Distribution expenses were 10% of the sales.

You are required to prepare a Cost Sheet with all elements.

(Ans: Cost of sales – Rs.50,25,000, Profit – Rs.4,75,000)

(SOLVE PROBLEM NO. 2 OF ASSIGNMENT PROBLEMS AS REWORK)

Concept questions:

What is the impact on question, if administrative overheads were 10% of cost of deduction?

Note: _____

PROBLEM 3: (PRINTED SOLUTION AVAILABLE) Following information relate to a manufacturing concern for the year ended 31st March, 2018:

	Rs.
Raw material (opening)	2,28,000
Raw material (closing)	3,05,000
Purchase of raw material	42,25,000
Freight inwards	1,00,000
Direct wages paid	12,56,000

Direct wages o/s at the end of the year	1,50,000
Factory overheads	20% of prime cost
Work In progress (opening)	1,92,500
Work In progress (closing)	1,40,700
Administrative overheads (related to production)	1,73,000
Distribution expenses	Rs.16 per unit
Finished stock (opening) – 1217 units	6,08,500
Sale of scrap of material	8,000

The firm produced 14000 units of output during the year. The stock of finished goods at the end of the year is valued at cost of production. The firm sold 14153 units at a price of Rs.618 per unit during the year, Prepare cost sheet of the firm.

(A)(RTP 2019(NEW))(ANS: C.O.P – 70,00,000 ; PROFIT – 14,43,606)

(SOLVE PROBLEM NO. 3 OF ASSIGNMENT PROBLEMS AS REWORK Pg no:5.10)

Concept questions

Find closing stock, if closing stock units include opening stock of 364 units .

Note: _____

PROBLEM 4: From the following data of ABC Ltd., Calculate Cost of production:

	Amount (Rs)
i) Repair & maintenance paid for plant & machinery	9,80,500
ii) Insurance premium paid for inventories	26,000
iii) Insurance premium paid for plant & machinery	96,000
iv) Raw materials purchased	64,00,000
v) Opening stock of raw materials	2,88,000
vi) Closing stock of raw materials	4,46,000
vii) Wages paid	23,20,000
viii) Value of opening Work-in-process	4,06,000
ix) Value of closing Work-in-process	6,02,100
x) Quality control cost for the products in manufacturing process	86,000
xi) Research & development cost for improvement in production process	92,600
xii) Administrative cost for:	
- Factory & production	9,00,000
- Others	11,60,000
xiii) Amount realised by selling scrap generated during the manufacturing process	9,200
xiv) Packing cost necessary to preserve the goods for further processing	10,200
xv) Salary paid to Director (Technical)	8,90,000

(A) MTP1 NOV19(N), RTP N18(N),MTP II – M18 (N) (ANS: C.O.P-1,05,48,000)

(SOLVE PROBLEM NO. 4 OF ASSIGNMENT PROBLEMS AS REWORK)

Concept questions:

What is the impact on question, if the given packing cost is for secondary packing?

Note: _____

PROBLEM 5: The books of Adarsh manufacturing company present the following data for the month of April, 2019

- Direct Labour cost of Rs.17,500 being 175 % of works overheads.
- The cost of goods sold excluding administrative expense Rs.56,000
- Inventory accounts showed the following opening and closing balances:

Particulars	April 1	April 30
Raw Material	8,000	10,600
Work-In-Progress	10,500	14,500
Finished Goods	17,600	19,000
Selling expenses		3,500
General and administration expenses		2,500
Sales for the month		75,000

Compute the value of materials purchased and prepare a cost statement showing the various elements of cost and also calculate the profit earned.

(A) (NEW SM)

(ANS: VALUE OF MATERIALS PURCHASED IS RS.36,500; COST OF SALES IS 62,000; PROFIT EARNED IS 13,000)

(SOLVE PROBLEM NO. 5, 6 OF ASSIGNMENT PROBLEMS AS REWORK)

Concept question:

Find purchase of material if administrative overhead relating to production is RS.6500

Note: _____

PROBLEM 6: M/s Areeba Private Limited has a normal production capacity of 36,000 units of toys per annum. The estimated costs of production are as under:

- Direct Material Rs 40 per unit
- Direct Labour Rs 30 per unit (subject to a minimum of Rs 48,000 p.m)
- Factory overheads
 - Fixed 3,60,000 per annum
 - Variable Rs 10 per unit
 - Semi - Variable Rs 1,08,000 per annum up to 50% capacity and additional Rs. 46,800 for every 20% increase in capacity or any part thereof.
- Administrative Over Heads Rs 5,18,400 per annum(fixed)
- Selling overheads are incurred at Rs 8 per unit
- Each unit of Raw material yields scrap which is sold at the rate of 5 per unit
- In year 2019, the factory at 50% capacity for the first three months but it is expected that it would work at 80% capacity for the remaining nine months
- During the first three months the selling price per unit was Rs 145

You are required to

- Prepare a cost sheet showing Prime cost, Works cost, Cost of Production and cost of sales
- Calculate the selling price per unit for remaining nine months to achieve the total annual profit of Rs.8,76,600.

(MAY – 2019(NEW)) (ANS.: (i) Prime cost:17,05,500, Works Cost: 25,04,700, Cost of production: 30,23,100, Cost of sale: 32,31,900, (ii) Cost of S.P RS160 p. a.)

CONCEPT QUESTION:

IF SEMI VARIABLE =108000 IS UP TO 50% CAPACITY AND ADDITIONAL 46,800 FOR EVERY 50% INCREASE IN CAPACITY OR ANY PART THERE OF.

(SOLVE PROBLEM NO. 7 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

PROBLEM 7:

XYZ a manufacturing firm, has revealed following information for September, 2019.

Particulars	1 st September	30 th September
Raw materials	2,42,000	2,92,000
Works – in – progress	2,00,000	5,00,000

The firm incurred following expenses for a targeted production of 1,00,000 units during the month:

Particulars	Rs.
Consumable Stores and spares of factory	3,50,000
Research and development cost for process improvements	2,50,000
Quality control cost	2,00,000
Packing cost (secondary) per unit of goods sold	2
Lease rent of production asset	2,00,000
Administrative Expenses (General)	2,24,000
Selling and distribution Expenses	4,13,000
Finished goods (opening)	NIL
Finished goods (closing)	5,000 Units

Defective output which is 4% of targeted production, realizes Rs. 61 per unit.

Closing stock is valued at cost of production (excluding administrative expenses)

Cost of goods sold, excluding administrative expenses amounts to Rs. 78,26,000.

Direct employees cost is ½ of the cost of material consumed.

Selling price of the output is Rs. 110 per unit.

You are required to:

- (i) Calculate the value of material purchased
- (ii) Prepare cost sheet showing the profit earned by the firm.

(SOLVE PROBLEM NO. 8 OF ASSIGNMENT PROBLEMS AS REWORK)
(NOV19)(N)

CONCEPT QUESTION:

What would be the impact on the question if, Direct employees cost is 100% of the cost of material consumed.

Note: _____

PROBLEM 8: (PRINTED SOLUTION AVAILABLE) DFG Ltd manufactures leather bags for office and school purpose. The following information is related with the production of leather bags for the month of September, 2019.

- (i) Leather sheets and cotton cloths are the main inputs and the estimated requirement per bag is two meters of leather sheets and one meter of cotton cloth. 2,000 meter of leather sheets and 1,000 meter of cotton cloths are purchased at Rs. 3,20,000 and Rs. 15,000 respectively. Freight paid on purchases is Rs. 8,500.
- (ii) Stitching and finishing need 2,000 man hours at Rs. 80 per hour.
- (iii) Other direct cost of Rs. 10 per labour hour is incurred.
- (iv) DFG has 4 machines at a total cost of Rs. 22,00,000. Machine has a life of 10 years with a scrape value of 10% of the original cost. Depreciation is charged on straight line method.

- (v) The monthly cost of administrative and sales office staffs are Rs. 45,000 and Rs. 72,000 respectively. DFG pays Rs. 1,20,000 per month as rent for a 2,400 sq. feet factory premises. The administrative and sales office occupies 240 sq. feet and 200 sq. feet respectively of factory space.
- (vi) Freight paid on delivery of finished bags is Rs. 18,000
- (vii) During the month 35kg. of leather and cotton cuttings are sold at Rs. 150 per kg.
- (viii) There is no opening and closing stocks for input materials. There is 100 bags in stock at the end of the month.

Required:

PREPARE a cost sheet following functional classification for the month of September, 2019.

(Ans: Total cost of sales – 7,26,475)(RTP-19(N))

Concept questions:

What is the impact on question, if freight paid on delivery of finished bags is Rs 50,000

Note: _____

PRINTED SOLUTIONS TO SOME SELECTIVE PROBLEMS

PROBLEMS NUMBERS TO WHICH SOLUTIONS ARE PROVIDED:3.

PROBLEM 3:

Cost sheet for the year ended 31st March, 2019.

Units produced - 14,000 units

Units sold - 14,153 units

Particulars	Amount (Rs.)
Raw materials purchased	42,25,000
Add: Freight Inward	1,00,000
Add: Opening value of raw materials	2,28,000
Less: Closing value of raw materials	(3,05,000)
Less: Sale of scrap of material	(8,000)
Materials consumed	42,40,000
Direct Wages (12,56,000 + 1,50,000)	14,06,000
Prime Cost	56,46,000
Factory overheads (20% of Prime Cost)	11,29,200
Add: Opening value of W-I-P	1,92,500
Less: Closing value of W-I-P	(1,40,700)
Factory Cost	68,27,000
Add: Administrative overheads	1,73,000
Cost of Production	70,00,000
Add: Value of opening finished stock	6,08,500
Less: Value of closing finished stock [Rs. 500(70,00,000/14,000) × 1,064] (1,217+ 14,000 – 14,153 = 1,064 units)	(5,32,00)

Cost of Goods Sold	70,76,500
Distribution expenses (` 16 × 14,153 units)	2,26,448
Cost of Sales	73,02,948
Profit (Balancing figure)	14,43,606
Sales (Rs 618 × 14,153 units)	87,46,554

PROBLEM 8:

No. of bags manufactured = 1,000 units

Cost Sheet for the month of September 2019

No.	Particulars	Total Cost (Rs.)	Cost per unit (Rs.)
1	Direct materials consumed:		
	- Leather Sheets	3,20,000	320.00
	- Cotton Cloths	15,000	15.00
	Add: Freight paid on purchase	8,500	8.50
2	Direct Wages (Rs. 80 x 2,000 Hours)	1,60,000	160.00
3	Direct expenses (Rs. 10 x 2,000 Hours)	20,000	20.00
4	Prime Cost	5,23,500	523.50
5	Factory Overheads: Depreciation on Machines [(Rs. 22,00,000 x 9%) ÷ 12p Units]	16,500	16.50
	Apportion cost of factory rent	98,000	98.00
6	Works / Factory Cost	6,38,000	638.00
7	Less: Realisable value of cuttings (Rs. 150 x 35kg)	(5,250)	(5.25)
8	Cost of Production	6,32,750	632.75
9	Add: Opening Stock of bags	0	
10	Less: Closing stock of bags (100 bags x Rs. 632.75)	(63,275)	
11	Cost of Goods Sold	5,69,475	632.75
12	Add: Administrative Overheads		
	- Staff Salary	45,000	45.00
	- Apportioned rent for administrative office	12,000	12.00
13	Add: Selling and Distribution Overheads		
	- Staff Salary	72,000	80.00
	- Apportioned rent for sales office	10,000	11.11
	- Freight paid on delivery of bags	18,000	20.00
14	Cost of Sales (18 + 19 + 20)	7,26,475	800.86

Apportionment of Factory Rent:

To Factory Building [(Rs. 1,20,000 ÷ 2,400 sq.feet) x 1,960 sq.feet] = 98,000

To Administrative Office [(Rs. 1,20,000 ÷ 2,400 sq.feet) x 240 sq.feet] = 12,000

To Sale Office [(Rs. 1,20,000 ÷ 2,400 sq.feet) x 200 sq.feet] = 10,000

ASSIGNMENT PROBLEMS

PROBLEM 1: The following data relates to the manufacture of a standard product during the month of April, 20X8:

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

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

i) Cost per unit

ii) Profit for the month. (A) (NEW SM)(ANS.: COST PER UNIT = RS. 102.22; PROFIT FOR THE MONTH = RS.82,000)

PROBLEM 2: From the following figures, Calculate cost of production and profit for the month of March 2018.

	Amount (Rs)		Amount (Rs)
Stock on 1st March, 2018		Purchase of raw materials	28,57,000
- Raw materials	6,06,000	Sale of finished goods	1,34,00,000
- Finished goods	3,59,000	Direct wages	37,50,000
Stock on 31st March, 2018		Factory expenses	21,25,000
- Raw materials	7,50,000	Office and administration expenses	10,34,000
- Finished goods	3,09,000	Selling and distribution expenses	7,50,000
Work-in-process:		Sale of scrap	26,000
- On 1st March, 2018	12,56,000		
- On 31st March, 2018	14,22,000		

(B) (MTP1 - M19 (NEW)),(ANS: C.O.P-83,96,000; PROFIT: 31,70,000)

(SOLVE PROBLEM NO. 2 OF ASSIGNMENT PROBLEMS AS REWORK)

Concept questions

(a) Find cost of production if above office and administration expenses are related to production

PROBLEM 3: From the following figures calculate cost of Production and the profit for the month of March 2019

Particulars	Amount	Particulars	Amount
Stock on 1 st March 2019		Purchase of Raw material	39,52,000
Raw material	89,000	Sales of finished goods	2,57,56,000
Finished Goods	1,80,000	Direct wages	1,37,98,000
Stock on 31 st March 2019		Factory Expenses	42,55,300
Raw material	5,00,000	Office & Administration Expenses	30,20,200

Finished Goods	2,00,000	Selling & Distribution Expenses	3,70,600
Work in progress		Sale of Scrap	50,000
On 1 st March 2019	1,50,000		
On 31 st March 2019	59,000		

(Ans: Total cost of Production: 2,16,35,300, Profit:7,49,900)

PROBLEM 4: From the following data of ABC Ltd., Calculate Cost of production:

	Amount (Rs)
i) Repair & maintenance paid for plant & machinery	10,000
ii) Insurance premium paid for inventories	3,000
iii) Insurance premium paid for plant & machinery	2,000
iv) Raw materials purchased	58,000
v) Opening stock of raw materials	5,000
vi) Closing stock of raw materials	4,000
vii) Wages paid	23,000
viii) Value of opening Work-in-process	2,500
ix) Value of closing Work-in-process	7,500
x) Quality control cost for the products in manufacturing process	15,000
xi) Research & development cost for improvement in production process	50,000
xii) Administrative cost for:	
- Factory & production	30,000
- Others	70,000
xiii) Amount realised by selling scrap generated during the manufacturing process	2,000
xiv) Packing cost necessary to preserve the goods for further processing	5,000
xv) Salary paid to Director (Technical)	5,000

(A) (RTP N18(N),MTP II – M18 (N)) (ANS: C.O.P-1,90,000)

PROBLEM 5: Prepare the cost sheet to show the total cost of production and cost per unit of goods manufactured by a company for the month of July 2017. Also find out the cost of sales.

Particulars	(in RS.)
Stock of raw material 1.7.2017	3,000
Raw materials purchased	28,000
Stock of raw materials 31.7.2017	4,500
Manufacturing wages	7,000
Depreciation on plant	1,500
Loss on sale part of plant	300
Factory rent and rates	3,000
Discount on sales	300
Advertisement expenses to be charged fully	600
Income tax paid	2,000
Administrative overhead (relating to production)	900

The number of units produced during July, 2017 was RS.3000.

The stock of finished goods was 200 and 400 units on 1.7.2017 and 31.07.2017 respectively.

The total cost of units on hand on 1.7.2017 was RS.2,800.All these had been sold during the month.

(Ans: Total cost of production :38,900, cost per unit:RS.12.96, cost of sales; 37,460)

PROBLEM 6: The books of Ganapathi manufacturing company present the following data for the month of April, 2019.

- d) Direct Labour cost of Rs.10,000 being 200 % of works overheads.
 e) The cost of goods sold excluding administrative expense Rs.75,000
 f) Inventory accounts showed the following opening and closing balances:

Particulars	April 1	April 30
Raw Material	5,000	15,000
Work-In-Progress	30,000	21,000
Finished Goods	3,500	1,000
Selling expenses		2,500
General and administration expenses		1,000
Sales for the month		100,000

Compute the value of materials purchased and prepare a cost statement showing the various elements of cost and also calculate the profit earned. (A) (NEW SM)

(ANS: VALUE OF MATERIALS PURCHASED IS RS.58,500; COST OF SALES IS 78,500; PROFIT EARNED IS Rs. 21,500)

PROBLEM 7: PR Ltd. manufactures and sells a typical brand of Tiffin Boxes under its brand name. The installed capacity of the plant is 1,20,000 units per year distributable evenly over each month of calendar year. The Cost Accountant of the company has informed the following cost structure of the product, which is as follows:

Raw Material Rs.20 per unit.

Direct Labour Rs.12 per unit

Direct Expenses Rs.2 per unit

Variable Overheads Rs. 16 per unit.

Fixed Overhead Rs. 3,00,000.

Semi-variable Overheads are as follows:

Rs.7,500 per month upto 50% capacity & Additional Rs.2,500 per month for every additional 25% capacity utilization or part thereof.

The plant was operating at 50% capacity during the first seven months of the calendar year 2016, at 100% capacity in the remaining months of the year.

The selling price for the period from 1st Jan, 2016 to 31st July, 2016 was fixed at Rs 69 per unit. The firm has been monitoring the profitability and revising the selling price to meet its annual profit target of Rs 8,00,000. You are required to suggest the selling price per unit for the period from 1st August 2016 to 31st December 2016.

Prepare Cost Sheet clearly showing the total and per unit cost and also profit for the period.

- i. From 1st Jan. to 31st July, 2016
 ii. From 1st Aug. to 31st Dec, 2016. (SM) (Ans: Cost per unit 50% -Rs.56.50, 100%-Rs.53.75)

PROBLEM 8: COMPREHENSIVE LTD gives you the following information-

1. from financial records	Rs 000's:	2. From inventory records:	Rs 000's:	Rs 000's:
Particulars		Particulars of stock	As at 31 st Dec	As at 1 st Jan
Sales for the year	7500	Raw materials	1060	800
Direct labour	1750	Finished goods	1900	1760

Management expenses	250	WIP (50% complete)	1450	1050
Selling expenses	350			

3. From analysis of past data:

- a) Direct labour would be 175% of works overheads.
- b) Cost of goods sold (excluding administration OH and selling OH) would be 11,250 per unit.
- c) Selling expenses would be Rs 700 per unit.

You are required to

- 1. Compute the value of materials purchased during the year.
- 2. Determine the rate of profit earned on sales.

(Ans: 1. 36,50. 2. 17.33%.)

ADDITIONAL PROBLEMS FOR SELF PRACTICE

PROBLEM 1: 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 (Rs)
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 Rs 1,50,000 and fixed marketing expenses amount to Rs 2,50,000 per month respectively. The variable distribution cost amounts to Rs 30 per unit.

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

- a) It gives gift items costing Rs 30 per unit of sale;
- b) It has lucky draws every month giving the first prize of Rs 50,000; 2nd prize of Rs 25,000, 3rd prize of Rs 10,000 and three consolation prizes of Rs 5,000 each to customers buying the product.
- c) It spends Rs 1,00,000 on refreshments served every month to its customers;
- d) It sponsors a television programme every week at a cost of Rs 20,00,000 per month.

It can market 30% of its output at Rs 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.

(B) (NEW SM) ANS.: TOTAL COST AND PROFIT FOR THE MONTH AT 30% CAPACITY LEVEL IS RS.423.33; Rs.126.72 AND 100% CAPACITY LEVEL IS Rs.396.00; Rs.104.00 RESPECTIVELY)

Note: _____

PROBLEM 2: Parker manufactures two types of pens, P & Q. Prepare a cost statement separately for two types of pens from the following cost data for the year-ended 30th, Sep.:

Direct Material	4,00,000
Direct Wages	2,24,000
Production OH	96,000

- a) Direct materials in type P is double to direct materials in type Q. Direct wages for type Q is 60% of those for type P.
- b) Production overheads are at the same rate for both types. Administration overheads for each are 200% of direct labour. Selling costs are 50 Paise per pen for both types.
- c) Production during the year: Type P - 40,000, Type Q - 1,20,000 units. Sales during the year: Type P - 30,000, Type Q - 1,00,000. Selling price - Rs.14 for type P and Rs.10 for type Q.

(ANS.: COST OF SALES AT P AND Q ARE 3,33,000 AND 6,70,000 RESPECTIVELY, PROFIT / LOSS: 87,000 AND 3,30,000 RESPECTIVELY AT P AND Q, SALES: 4,20,000 AND 10,00,000 RESPECTIVELY AT P AND Q)

Note: _____

PROBLEM 3: Arnav In spat Udyog Ltd. has the following expenditures for the year ended 31st March, 20X8:

S. No.		Amount (Rs.)	Amount (Rs.)
(i)	Raw materials purchased		10,00,00,000
(ii)	GST paid on the above purchases @18% (eligible for input tax credit)		1,80,00,000
(iii)	Freight inward		11,20,600
(iv)	Wages paid to factory workers		29,20,000
(v)	Contribution made towards employees' PF & ESIS		3,60,000
(vi)	Production bonus paid to factory workers		2,90,000
(vii)	Royalty paid for production		1,72,600
(viii)	Amount paid for power & fuel		4,62,000
(ix)	Amount paid for purchase of moulds and patterns (life is equivalent to two years production)		8,96,000
(x)	Job charges paid to job workers		8,12,000
(xi)	Stores and spares consumed		1,12,000
(xii)	Depreciation on		:
	- Factory building	84,000	
	- Office building	56,000	
	- Plant & Machinery	1,26,000	
	- Delivery vehicles	86,000	3,52,000
(xiii)	Salary paid to supervisors		1,26,000
(xiv)	Repairs & Maintenance paid for		:
	- Plant & Machinery	48,000	
	- Sales office building	18,000	
	- Vehicles used by directors	19,600	85,600
(xv)	Insurance premium paid for		:
	- Plant & Machinery	31,200	
	- Factory building	18,100	
	- Stock of raw materials & WIP	36,000	85,300
(xvi)	Expenses paid for quality control check activities		19,600

(xvii)	Salary paid to quality control staffs		96,200
(xviii)	Research & development cost paid improvement in production process		18,200
(xix)	Expenses paid for pollution control and engineering & maintenance		26,600
(xx)	Expenses paid for administration of factory work		1,18,600
(xxi)	Salary paid to functional mangers:		
	- Production control	9,60,000	
	- Finance & Accounts	9,18,000	
	- Sales & Marketing	<u>10,12,000</u>	28,90,000
(xxii)	Salary paid to General Manager		12,56,000
(xxiii)	Packing cost paid for:		
	- Primary packing necessary to maintain quality	96,000	
	- For re-distribution of finished goods	<u>1,12,000</u>	2,08,000
(xxiv)	Interest and finance charges paid		7,20,000
(xxv)	Fee paid to auditors		1,80,000
(xxvi)	Fee paid to legal advisors		1,20,000
(xxvii)	Fee paid to independent directors		2,20,000
(xxviii)	Performance bonus paid to sales staffs		1,80,000
(xxix)	Value of stock as on 1st April, 20X7:		
	- Raw materials	18,00,000	
	- Work-in-process	9,20,000	
	- Finished goods	<u>11,00,000</u>	38,20,000
(xxx)	Value of stock as on 31st March, 20X8:		
	- 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 – Rs. 86,000/
 From the above data you are requested to PREPARE Statement of cost for Arnav In spat Udyog Ltd. for the year ended 31st March, 20X8, showing (i) Prime cost, (ii) Factory cost, (iii) Cost of Production, (iv) Cost of goods sold and (v) Cost of sales

(C) (PQ) (SIMILAR N18(N) – 10M) (PRIME COST = 10,74,25,200; FACTORY COST = 10,80,83,100; COST OF PRODUCTION = 10,93,05,700; COST OF GOODS SOLD = 10,86,05,700 ; COST SALES = 11,35,03,300)

PROBLEM 4: A firm has purchased a plant to manufacture a new product. The cost data are given below:

Estimated annual sales	36,000 units
Material	Rs.4 per unit
Direct labour	Rs.0.6 per unit
Overheads -manufacturing	Rs.24,000 p.a
Administrative expenses	Rs.28,800 p.a
Selling expenses	15% of sales

Calculate the selling price if profit per unit Rs.1.50. Assume whatever is produced is sold.

THE END

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