

NATIONAL MANAGEMENT COLLEGE – THUDUPATHY

CA INTERMEDIATE (2021-2022)

SUB : COST AND MANAGEMENT ACCOUNTING

MODEL 1/100 MARKS/3 HOURS/15.3.2022

ANSWER THE FOLLOWING QUESTIONS (10*10=100marks)

1.HBL Limited produces product 'M' which has a quarterly demand of 20,000 units. Each product requires 3 kg and 4kg of material X and Y respectively. Material X is supplied by a local supplier and can be procured at factory stores at any time. Hence, no need to keep inventory for material X. The material Y is not locally available, it requires to be purchased from other states in a specially designed truck container with a capacity of 10 hours.

The cost and other information related with the material are as follows:

Particulars	Material – X	Material - Y
Purchase price per Kg (excluding GST)	140	640
Rate of GST	18%	18%
Freight per trip (fixed, irrespective of quantity)	-	28,000
Loss of materials in transit	-	2%
Loss in process	4%	5%

Other information:

- The company has to pay 15% p.a.to bank for cash credit facility
- Input credit is available on GST paid on materials.

Required:

- I. CALCULATE **cost** per kg. **of** material X and y
- II. CALCULATE the Economic Order quantity for both the materials.

2.ADV Pvt. Ltd. Manufactures a product which requires skill and precision in work to get quality products. The company has been experiencing high labour cost but without compromising with the quality of work . It wants to introduce a bonus scheme but is indifferent between the Halsey and Rowan scheme of bonus.

For the month of November 2019, the company budgeted for 24,960 hours of work. The workers are paid 80 per hour.

Required:

CALCULATE and suggest the bonus scheme where the time taken (in %) to time allowed to complete the works in (a) 100% (b) 75% (c) 50% (d) 25% of budgeted hours.

3. PLR Ltd. Manufacturers a single product and recovers the overheads by adopting a single blanket rate based on machine hours. The budgeted production overheads of the factory for the FY 2019-20 are 50,40,000 and budgeted machine hours are 6,000.

For a period of first six months of the financial year 2019-20, following information were extracted from the books:

Actual production overheads	34,08,000
-----------------------------	-----------

Amount included in the production overheads:

Paid as per court's order	4,50,000
Expenses of previous year booked in current year	1,00,000
Paid to workers for strike period under an award	4,20,000
Obsolete stores written off	36,000

Production and sales data of the concern for the first six months are as under:

Production:

Finished goods	1,10,000 units
Works – in –progress	
(50% complete in ever respect)	80,000 units

Sale:

Finished goods	1,10,000 units
Works – in progress	80,000 units

Sale:

Finished goods	90,000 units
----------------	--------------

The actual machine hours worked during the period were 3,000 hours. It is revealed from the analysis of information that 40% of the over/under-absorption was due to defective production policies and the balance was attributable to increase in costs.

You are required:

- I. to determine the amount of over/under absorption of production overheads for the period.
- II. to show the accounting treatment of over/under-absorption of production overheads, and
- III. to apportion the over/under-absorbed overheads over the items.

4. SMP Pvt Ltd manufactures three products using three different machines. At present the overheads are charged to products using labour hours. The following statement for the month of September 2019, using the absorption costing method has been prepared:

Particulars	product X	Product Y	Product Z
	(using machine A)	(using machine B)	(using machine C)
Production units	45,000	52,000	30,000
Material cost per unit (₹)	350	460	410
Wages per unit @ ₹80 per			
Hour	240	400	560
Overhead cost per unit(₹)	300	500	700
Total cost per unit (₹)	890	1,360	1,670
Selling price (₹)	1,112,50	1,700	2,087,50

The following additional information is available relating to overhead cost drivers.

Cost driver	product X	product y	product Z	Total
No. of machine set-ups	40	160	400	600
No. of purchase orders	400	800	1,200	2,400
No. of customers	1,000	2,200	4,800	8,000

Actual Production and budgeted production for the month is same. Workers are paid at standard rate.

Out of total overhead costs. 30% related to machine set-ups, 30% related to customer order processing and customer complaint management. While the balance proportion related to material ordering.

Required:

- I. COMPUTER overhead cost per unit using activity based costing method

- II. DETERMINE the selling price of each product based on activity- based costing with the same profit mark-up on cost.

5. 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 clothes are the main inputs. And the estimated requirement per bag is two
- II. Meters of leather sheet and one meter of cotton cloth. 2,000 **meter** of leather sheets and 1,000 meter of cotton cloths are purchased at ₹3,20,000 and ₹15,000 respectively. Freight paid on purchases is ₹8,500.
- III. Stitching and finishing need 2,000 man hours at ₹80 per hours.
- IV. Other direct cost of ₹10 per labour is incurred.
- V. DFG has 4 machines at a total cost of ₹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.
- VI. The monthly cost of administrative and sales office staffs are ₹ 72,000 respectively. DFG pays ₹ 1,20,000
- VII. Per month as rent for a 2400 sq feet factory premises. The administrative and sales office occupies 240sq. feet and 200 sq feet respectively of factory space.
- VIII. There is no opening and closing stocks for input materials. There is 100 bags stock at the end of the month.

Required:

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

6. As of 30th September, 2019, the following balances existed in a firm's cost ledger, which is maintained separately on a double entry basis:

	Debit ₹	credit ₹
Stores ledger control A/C	15,00,000	-
Work- in progress control A/C	7,50,000	-
Finished goods control A/C	12,50,000	-
Manufacturing overhead control A/C	-	75,000
Cost ledger control A/C	-	34,25,000
	35,00,000	35,00,000

During the next quarter, the following items arose

	₹
Finished product (at cost)	11,25,000
Manufacturing overhead incurred	4,25,000
Raw material purchased	6,25,000
Factory wages	2,00,000
Indirect labour	1,00,000
Cost of sales	8,75,000
Materials issued to production	8,75,000
Sales returned (at cost)	45,000
Materials returned to suppliers	65,000
Manufacturing overhead charged to production	4,25,000

Required:

PREPARE the cost ledger control A/C, Work-in-progress control A/C , Finished stock ledger control A/C, Manufacturing overhead control A/C, Wages control A/C and the Trial Balance at the end of the quarter.

Rounak Ltd. Is the manufacture of monitors for PCS. A monitor requires 4 units of part-M, The following are the details of its operation during 20XB

Average monthly market demand	2,000 Monitors
Ordering cost	₹ 1,000 per order
Inventory carrying cost	20% per order
Cost of part	₹ 350 per part
Normal usage	425 parts per week
Minimum usage	140 parts per week
Maximum usage	710 parts per week
Lead time to supply	3-5 weeks

COMPUTER from the above

- I. Economic order quantity (EOQ) if the supplier is willing to supply quarterly 30,000 units of part-M at discount of 5% is it worth accepting?
- II. Recorder level
- III. Maximum level of stock
- IV. Minimum level of stock

Sree Ajest Ltd. having fifteen different types of machines furnished information as under for 20XB-20X9

- I. Overhead expenses: Factory rent ₹ 1,80,000 (floor area 1,00,000 sq ft.) Heat and gas ₹ 60,000 and supervision ₹ 1,50,000.
- II. Wages of the operator are ₹ 200 per day of 8 hours. Operator attends to one machine when it is under set up and two machines while they are under operation.

In respect of machine B (one of the above machines) the following particulars are furnished:

- I. Cost of machine ₹1,80,000, life of machine-10 years and scrap value at the end of its life ₹ 10,000
- II. Annual expenses on special equipment attached to the machine are estimated as ₹ 12,000
- III. Estimated operation time of the machine is 3,600 hours while set up time is 400 hours per annum
- IV. The machine occupies 5,000 sq. ft of floor area
- V. Power costs ₹ 5 per hour while machine is in operation

ESTIMATE the comprehensive machine hour rate of machine B Also find out machine costs to be absorbed in absorbed in respect of use of machine B on the following two work orders.

	Work order- 1	work order - 2
Machine set up time (Hours)	15	30
Machine operation time (Hours)	100	190

Family store wants information about the profitability of individual product lines: soft drinks.

Fresh produce and packaged food. Family store provides te following data for the year 20X7 – X8 for

Each product line.

	Soft drinks	fresh produce	packaged food
Revenues	₹ 39,67,500	₹ 1,05,03,000	₹ 60,49,500
Cost of goods sold	₹ 30,33,000	₹ 75,00,000	₹ 45,00,000
Cost of bottles returned	₹ 60,000	₹ 0	₹ 0
Number of purchase orders placed	360	840	360
Number of deliveries received	300	2,190	660
Hours of shelf- stocking time	540	5,400	2,700
Items sold	1,26,000	11,04,000	3,06,000

Family store also provides the following information for the year 20X7-8

Activity	Description of activity	Total cost	Cost – allocation base
Bottles	Returning of empty bottles	₹60,000	Direct tracing to soft drink line
Ordering	Physical delivery and receipt of goods	₹7,80,000	1,560 purchase orders
Shelf stocking	Stocking of goods on store Sheives and on-going restocking	₹12,60,000	3.150 deliveries
Customer support	Assistance provided to customers including check – out	₹15,36,000	15,36,000 items sold

Required:

- I. Family store currently allocates support cost (all cost other than cost of goods sold) to product lines on the basis of cost goods sold of each product line. CALCULATE the operating income and operating income as a% revenues for each product line.
- II. If family store allocates support costs (all costs other than cost of goods sold) to product lines using an activity based costing system. CALCULATE the operating income and operating income as a % of revenues for each product line.

The financial books of a company reveal the following data for the year ended 31st March 20X8

Opening stock	₹
Finished goods 625 units	53,125
Work- in process 1.04.20X7 to 31.03.2	46,00
Raw material consumed	8,40,000
Direct labour	6,10,000
Factory overheads	4,22,000
Administration overheads (production related)	1,98,000
Dividend paid 1,	22,000
Bad debit	18,000
Selling and distribution over head	72,000
Interest received	38,000
Rent received	46,000
Sales 12.615 units	22,80,000
Closing stock: finished goods 415 units	45,650
Work- in process	41,200

The cost records provided as under:

- Factory overheads are absorbed at 70% direct wages
- Administration overheads are recovered at 15% of factory cost.
- Selling and distribution overheads are charged at ₹ 3 per unit sold.
- Opening stock of finished goods is valued at ₹ 120 per unit.

The company value work-in-process at factory cost for both financial and cost profit reporting.

Required:

- I. PREPARE a statements for the year ended 31st March, 20X8. Show

- The profit as per financial records
 - The profit as per costing records.
- II. PREPARE a statement reconciling the profit as per costing records with the profit as per financial records.