Question 1 (Module/June 2024 S22/December 2018 set 2/Dec 2024 set 1)

An advertising agency has received an enquiry for which you are supposed to submit the quotation. Bill of material prepared by the production department for the job states the following requirement of material:

Paper 10 reams @ ₹1,800 per ream	
Ink and other printing material	₹ 5,000
Binding material & other consumables	₹ 3,000

Some photography is required for the job. The agency does not have a photographer as an employee. It decides to hire one by paying ₹10,000 to him. Estimated job card prepared by production department specifies that service of following employees will be required for this job:

Artist (₹12,000 per month)	80 hours
Copywriter (₹10,000 per month)	75 hours
Client servicing (₹9,000 per month)	30 hours

The primary packing material will be required to the tune of ₹4,000. Production Overheads 40% of direct cost, while the Selling & Distribution Overheads are likely to be 25% on Production Cost. The agency expects a profit of 20% on the quoted price. The agency works 25 days in a month and 6 hours a day.

Question 2 (Module)

PR Ltd manufactures and sells a typical brand of Tiffin Boxes under its on 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	₹ 20 per unit.
Direct Labour	₹ 12 per unit.
Direct Expenses	₹ 2 per unit
Variable Overheads	₹ 16 per unit
Fixed Overheads	₹ 3,00,000.

Semi-variable Overheads are as follows:

₹ 7,500 per month up to 50% capacity and additional ₹ 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 2021, at 100% capacity in the remaining months of the year.

The selling price for the period from 1st January, 2021 to 31st July, 2021 was fixed at ₹ 69 per unit. The firm has been monitoring the profitability and revising the selling price to

meet its annual profit target of ₹ 8,00,000. You are required to suggest the selling price per unit for the period from 1st August, 2021to 31st December, 2021.

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

1. From 1st January to 31st July, 2021.

2. From 1st August to 31st December, 2021.

Question 3 (December 2018/December 2023 S22)

Z Ltd., manufactured and sold 200 typewriters in the year 2017. Its summarised Trading and Profit & Loss Account for the year 2017 is as follows:

Total Output (in units) 200

Particulars	Rs.	Particulars	Rs.
To Cost of Material consumed	1,20,000	By Sales	6,00,000
To Direct Wages	1,80,000		
To Manufacturing Charges	75,000		
To Gross Profit c/d	2,25,000		
	6,00,000		6,00,000
To Management Expenses	90,000	By Gross Profit b/d	2,25,000
To General Expenses	30,000		
To Rent, Rates & Taxes	15,000		
To Selling Expenses	45,000		
To Net Profit	45,000		
	2,25,000		2,25,000

For the year 2018, it is estimated that

(i) The output and sales will be 300 typewriters.

(ii) Price of material will rise by 25% compared to previous year level.

(iii) Wages per unit will rise by 10%.

(iv) Manufacturing charges will increase in proportion to the combined cost of material and wages

(v) Selling expenses per unit will remain unchanged. Other expenses will remain unaffected by the rise in output.

Required:

Prepare a Cost Sheet showing the cost at which typewriters will be manufactured in 2018 and give price at which it should by marketed so as to show profit of 10% on selling price.

Question 4 (December 2022)

ZOXIN LTD. manufactures two types of pens 'Super Pen' and 'Normal Pen'. The cost data for the year ended 31st March, 2022 is as follows:

Direct Materials	8,00,000
Direct Wages	4,48,000
Production Overhead	1,92,000
Total	14,40,000

It is further ascertained that:

(1) Direct materials cost in Super Pen was twice as much as direct material in Normal Pen

(2) Direct Wages for Normal Pen were 60% of those for Super Pen

(3) Production overhead per unit was at the same rate for both the types

(4) Administration overhead was 200% of direct labour for each

(5) Selling cost was ₹ 1 per Super Pen

(6) Production and sales during the year were as follow:

Production		Sales	
	No. of units		No. of units
Super pen	40,000	Super pen	36,000
Normal pen	1,20,000		

(7) Selling price was ₹ 30 per unit for super pen.

Required:

Prepare a cost sheet for 'Super Pen' showing:

(i) Total work cost

(ii) Cost per unit and Total Cost

(iii) Profit per unit and Total Profit

Question 5 (June 2023)

M/s Sun (India) Ltd. is an export-oriented unit manufacturing communication equipment of a standard size. It has to send a tender price quotation (in rupee terms) to its foreign buyer in the UK. Company submits the following figures relating to year 2023:

	Output: 50,000 units
Expenses Incurred	
Local Raw Material Consumed	20,00,000
Excise Duty	4,00,000
Imports of Raw Material (Actual Consumption)	2,00,000
Administrative Office Expenses	4,00,000
Direct Labour in works	17,00,000

Salary of the Managing Director	2,00,000
Direct Expenses	3,00,000
Fees of Directors	40,000
Indirect Labour in works	4,00,000
Expenses on Advertising	3,20,000
Stores and Spare Parts	1,40,000
Selling Expenses	5,00,000
Fuel	3,00,000
Packing and Distribution Expenses	3,40,000
Depreciation on Plant	2,00,000
Salaries of Works Personnel	2,00,000

Other information:

(i) Local raw material now costs 10% more.

(ii) A profit margin of 20% on sales is maintained.

(iii) The Government grants subsidy of 40 per unit of export.

Required:

Prepare a statement showing tender price per unit to be submitted to the UK buyer.

Question 6 (December 2024 S22)

The following data are available from the books and records of ROHINT LTD. for the month of September, 2023.

Direct Labour Cost	₹ 1,20,000 (120% of Factory Overheads)
Raw material purchased	₹ 1,65,000
Cost of Sales	₹ 4,00,000
Sales	₹ 5,00,000

Accounts show the following figures:

	1" September, 2023 (₹)	30 September, 2023 (₹)
Inventory:		
Raw material	20,000	35,000
Work-in-Progress	20,000	30,000
Finished goods	50,000	60,000
Other details:		
Selling expenses		22,000
General & Admin. Expenses		18,000

General & Admin. Expenses are not relating to the production activity.

Required:

Summarize a Cost Sheet for the month of September 2024 showing:

(i) Prime cost

(ii) Work cost

(iii) Cost of goods sold

(iv) Cost of sales and profit earned

Question 7 (June 2019 Set 1/ December 2024 set 1)

A company manufactures scooters and sells it at ₹3,000 each. An increase of 17% in cost of materials and of 20% of labour cost is anticipated. The increased cost in relation to the present sales price would cause at 25% decrease in the amount of the present gross profit per unit. At present, material cost is 50%, wages 20% and overhead is 30% of cost of sales.

You are required to :

(i) Prepare a statement of profit and loss per unit at present and;

(ii) Compute the new selling price to produce the same percentage of profit to cost of sales as before.

Cost sheet (old Format)

Particulars	Total cost	Cost per unit
Opening Stock of Direct Raw Materials		
Add: Purchases		
Add: Carriage Inward		
Add: Octroi, Customs Duty and other expenses on purchases		
Less: Closing Stock of Direct Raw Materials		
Cost of Direct Materials Consumed		
Direct or Productive Wages		
Direct (or Chargeable) Expenses		
Prime Cost		
Add: Works or Factory Overheads:		
Indirect Materials		
Indirect Wages		
Leave Wages		
Overtime Premium		
Fuel and Power		
Coal		
Factory Rent and Taxes		
Insurance		
Factory Lighting		

Supervision		
Works Stationery		
Canteen and Welfare Expenses		
Repairs		
Haulage		
Works Salaries		
Depreciation of Plant & Machinery		
Works Expenses		
Gas and Water		
Drawing Office Salaries		
Technical Director' s Fees		
Laboratory Expenses		
Works Telephone Expenses		
Internal Transport Expenses		
Less: Sale of Scrap		
Factory cost/Works Cost before FG and WIP		
Add: Operating Stock of Work-in-progress		
Less: Closing Stock of Work-in-progress		
Factory Cost/Works Cost before FG		
Add: Office and Administrative Overheads:		
Office Salaries		
Director' s Fees		
Office Rent and Rates		
Office Stationery and Printing		
Sundry Office Expenses		
Depreciation and Repairs of Office Equipment		
Depreciation of Office Furniture		
Subscription to Trade Journals		
Office Lighting		
Establishment Charges		
Director's Travelling Expenses		
Postage		
Legal Charges		
Audit Fees		
Counting House/Office Salaries		
Cost of Production		
Add: Opening Stock of Finished Goods		
Less: Closing Stock of Finished Goods		
Cost of Goods Sold		
Add: Selling and Distribution Overheads:		
Advertising		

Showroom Expenses		
Salesmen's Salaries and Expenses		
Packing Expenses		
Carriage Outward		
Commission of Sales Agents		
Cost of Catalogues		
Expenses of Delivery Vans		
Collection Charges		
Travelling Expenses		
Cost of Tenders		
Warehouse Expenses		
Cost of Mailing Literature		
Sales Manager's Salaries		
Sales Director's Fees		
Showroom Expenses		
Sales Office Expenses		
Depreciation and Repairs of Delivery Vans		
Expenses of Sales Branches		
Cost of Sales (or Total Cost)		
Profit		
Sales		

Items excluded from cost

The following items are of financial nature and thus not included while preparing a cost sheet:

1. Cash discount
2. Interest paid
3. Preliminary expenses written off
4. Goodwill written off
5. Provision for taxation
6. Provision for bad debts
7. Transfer to reserves
8. Donations
9. Income-tax paid
10. Dividend paid
11. Profit/ loss on sale of fixed assets
12. Damages payable at law, etc.
13. Bad debts

Cost sheet (New Format)			
S.No	Particulars	Total Cost (₹)	Cost per unit (₹)
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.	Add: 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.	Add: Quality Control Cost	xxx	
11.	Add: Research and Development Cost	xxx	
12.	Add: 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)	xxx	
20.	Add: Marketing Overheads:		
	Selling Overheads	xxx	
	Distribution Overheads	xxx	
21.	Cost of Sales (18+19+20)	xxx	

Question 1

The following information relating to a type of Raw material is available:

Annual requirement 2,000 units

Unit price - ₹ 20

Ordering cost per order – ₹ 20

Storage cost 2% per annum

Interest rate 8% per annum

lead time- half month

Calculate economic order quantity and total annual inventory cost of the raw material.

Question 2

RST Limited has received an offer of quantity discount on its order of materials as under:

Price per tone	Tonnes number
Rs.9,600	Less than 50
Rs.9,360	50 and less than 100
Rs.9,120	100 and less than 200
Rs.8,880	200 and less than 300
Rs.8,640	300 and above

The annual requirement for the material of 500 tones. The ordering cost per order is Rs.12,500 and the stock holding cost is estimated at 25% of the material cost per annum.

Required:

(i) Compute the most economical level.

(ii) Compute EOQ if there are no quantity discounts and the price per tonne is Rs.10,500.

Question 3

SKD Company Ltd., not registered under GST, purchased material P from a company which is registered under GST. The following information is available for the one lot of 1,000 units of material purchased:

Listed price of one lot	₹ 50,000
Trade discount	@ 10% on Listed price
CGST and SGST (Credit Not available)	12% (6% CGST + 6% SGST)
Cash discount	@10%
(Will be given only if payment is made within 30 days.)	
Freight and Insurance	₹ 3,400
Toll Tax paid	₹ 1,000
Demurrage	₹ 1,000
Commission and brokerage on purchases	₹ 2,000

Amount deposited for returnable containers	₹ 6,000
Amount of refund on returning the container	₹ 4,000
Other Expenses	@ 2% of total cost

20% of material shortage is due to normal reasons.

The payment to the supplier was made within 20 days of the purchases.

You are required to calculate cost per unit of material purchased to SKD Company Ltd.

Question 4 (Module/December 2017/ December 2017 set 1/ June 2019 set 2)

From the following particulars with respect to a particular item of materials of a manufacturing company, calculate the best quantity to order:

Ordering quantities (tonne)	Price per ton (Rs.)
Less than 250	6.00
250 but less than 800	5.90
800 but less than 2,000	5.80
2,000 but less than 4,000	5.70
4,000 and above	5.60

The annual demand for the material is 4,000 tonnes. Stock holding costs are 25% of material cost p.a. The delivery cost per order is Rs. 6.00.

Question 5 (December 2018/ December 2019 set 2)

ZEDYAAH TUBES LTD. manufactures a special product, which requires ZEDY. The following particulars were collected for the year 2017-18:

(i)	Monthly demand of Zedy	7500 units
(ii)	Cost of placing an order	Rs.500
(iii)	Re-order period	5 to 8 weeks
(iv)	Cost per unit	Rs.60
(v)	Carrying cost % p.a.	10%
(vi)	Normal usage	500 units per week
(vii)	Minimum usage	250 units per week
(viii)	Maximum usage	750 units per week

Required:

Calculate the following:

(i) Re-order quantity

(ii) Re-order level

(iii) Minimum stock level

(iv) Maximum stock level

(v) Average stock level

Question 6 (December 2019/ December 2024)

ZION LTD uses three types of materials A, B and C for production of Product-P for which the following data apply:

Raw Material	Usage per unit of Product (kgs)	Reorder quantity (kgs)	Price per Kg (Re.)	Delivery period (in weeks)			Reorder level (kgs)	Minimum level (kgs)
				Minimum	Average	Maximum		
A	10	10000	0.10	1	2	3	8000	?
B	4	5000	0.30	3	4	5	4750	1550
C	6	10000	0.15	2	3	4	?	2000

Weekly production varies from 175 to 225 units, averaging 200 units of the said product. What would be the following quantities?

(i) Minimum stock of A,

(ii) Maximum stock of B,

(iii) Re-order level of C,

(iv) Average stock level of A.

Question 7 (Module/June 2018 Set 2)

A company manufactures a special product which requires a component 'X'. The following particulars are collected for the year 2017.

(i) Annual demand of 'X' 8,000 units

(ii) Cost of placing an order ₹ 200 per order

(iii) Cost per unit of 'X' ₹ 400

(iv) Carrying cost % p.a. 20%

The company has been offered a quantity discount of 4% on the purchase of 'X' provided the order size is 4,000 components at a time.

Required:

(i) Compute the economic order quantity.

(ii) Advise whether the quantity discount offer can be accepted.

Question 8 (Module)

Prepare a statement showing the pricing of issues, on the basis of

a. Simple Average and

b. Weighted Average methods from the following information pertaining to Material D

2022 March	1	Purchased 100 units @ ` 10 each
	2	Purchased 200 units @ ` 10.20 each
	5	Issued 250 units to Job X vide M.R. No. 12
	7	Purchased 200 units @ ` 10.50 each
	10	Purchased 300 units @ ` 10.80 each
	13	Issued 200 units to Job Y vide M.R. No. 15
	18	Issued 200 units to Job Z vide M.R. No. 17
	20	Purchased 100 units @ ` 11 each
	25	Issued 150 units to Job K vide M.R. No. 25

Question 9 (Module)

The stock of material held on 1-4-2022 was 400 units @ ₹ 50 per unit. The following receipts and issues were recorded. You are required to prepare the Stores Ledger Account, showing how the values of issues would be calculated under Base Stock Method, both through FIFO and LIFO base being 100 units.

2-4-2022	Purchased 100 units @ ` 55 per unit
6-4-2022	Issued 400 units
10-4-2022	Purchased 600 units @ ` 55 per unit
13-4-2022	Issued 400 units
20-4-2022	Purchased 500 units @ ` 65 per unit
25-4-2022	Issued 600 units
10-5-2022	Purchased 800 units @ ` 70 per unit
12-5-2022	Issued 500 units
13-5-2022	Issued 200 units
15-5-2022	Purchased 500 units @ ` 75 per unit
12-6-2022	Issued 400 units
15-6-2022	Purchased 300 units @ ` 80 per unit

Question 10 (Module)

Prepare a Stores Ledger Account from the following information adopting FIFO method of pricing of issues of Materials

2022 March	1.	Opening Balance 500 tonnes @ ` 200
	3.	Issue 70 tonnes
	4.	Issue 100 tonnes
	5.	Issue 80 tonnes
	13.	Received from suppliers 200 tonnes @ ` 190
	14.	Returned from Department A 15 tonnes
	16.	Issued 180 tonnes
	20.	Received from supplier 240 tonnes @ ` 195
	24.	Issue 300 tonnes
	25.	Received from supplier 320 tonnes @ ` 200
	26.	Issue 115 tonnes to Department B
	27.	Returned from Department B 35 tonnes
	28.	Received from supplier 100 tonnes @ ` 200

Question 11 (Module)

From this information provided as under, you are required to prepare a statement showing how the issues would be priced if LIFO method is followed.

2022 February	1.	Opening Balance 100 units @ ` 10 per unit
	2.	Received 200 units @ ` 10.50 per unit
	3.	Received 300 units @ ` 10.60 per unit
	4.	Issued 400 units to Job A vide M.R. No. 015
	6.	Issued 120 units to Job B vide M.R. No. 020
	7.	Received 400 units @ ` 11 per unit
	8.	Issued 200 units to Job B vide M.R. No. 031
	12.	Received 300 units @ ` 11.40 per unit
	13.	Received 200 units @ ` 11.50 per unit
	17.	Issued 400 units to Job D vide M.R. No. 040

Question 12 (Module)

Prepare Stores Ledger Account showing pricing of material issues on Replacement Price basis from the following particulars:

Opening balance 400 units @ ₹ 4 per unit

10-3-2022	Received 100 units @ ` 4.10 per unit
15-3-2022	Issued 300 units to Job XY vide M.R. No. 14
17-3-2022	Received 200 units @ ` 4.30 per unit
20-3-2022	Issued 250 units to Job AB vide M.R. No. 20
25-3-2022	Received 400 units @ ` 4.50 per unit
26-3-2022	Issued 200 units to Job JK vide M.R. No. 27
27-3-2022	Received 100 units @ ` 4.60 per unit
30-3-2022	Issued 300 units to Job PQ vide M.R. No. 32

Replacement Price on various dates:

15-3-2022 ₹ 4.20

20-3-2022 ₹ 4.40

26-3-2022 ₹ 4.60 &

30-3-2022 ₹ 4.80

Question 13 (Module)

M/s. Tubes Ltd are the manufacturers of picture tubes for TV. The following are the details of their operation during the year 2021:

Average monthly market demand	2,000 Tubes
Ordering cost	₹ 100 per order
Inventory carrying cost	20% per annum
Cost of tubes	₹ 500 per tube
Normal usage	100 tubes per week
Minimum usage	50 tubes per week
Maximum usage	200 tubes per week
Lead time to supply	6 – 8 weeks

Compute from the above:

i. Economic order quantity. If the supplier is willing to supply quarterly 1,500 units at a discount of 5%, is it worth accepting?

ii. Re-order Level

iii. Minimum level of stock

iv. Maximum level of stock

Question 1 (Module)

During October 2022, the following information is obtained from the Personnel Department of a manufacturing company. Labour force at the beginning of the month 1,900 and at the end of the month 2,100. During the month 25 people left while 40 persons were discharged. 280 workers were engaged out of which only 30 were appointed in the vacancy created by the number of workers separated and the rest on account of expansion scheme. Calculate the Labour Turnover by different methods.

Question 2 (Module)

The extracts from the payroll of M/s. Maheswari Bros. are as follows:

Number of employees at the beginning of 2022	150
Number of employees at the end of 2022	200
Number of employees resigned	20
Number of employees discharged	5
Number of employees replaced due to resignation and discharges	20

Calculate the Labour Turnover rate for the factory by different methods.

Question 3 (Module)

The management of XYZ Ltd is worried about the increasing Labour Turnover in the factory and before analyzing the causes and taking remedial steps; they want to have an idea of the profit foregone as a result of Labour Turnover during the last year. Last year's sales amounted to ₹ 83,03,300 and the profit / volume ratio was 20%. The total number of actual hours worked by the direct labour force was 4.45 lakhs. As a result of the delays by the personnel department in filling vacancies due to Labour Turnover, 1,00,000 potentially productive hours were lost. The actual direct labour hours included 30,000 hours attributable to training new recruits, out of which, half of the hours were unproductive. The cost incurred consequent on labour turnover revealed, on analysis the following. Settlement cost due to leaving: ₹ 43,820 and recruitment costs: ₹ 26,740. Selection costs: ₹ 12,750 and training costs: ₹ 30,490. Assuming that the potential production lost as a consequence of Labour Turnover could have been sold at prevailing
prices, find out the profit foregone last year on account of Labour Turnover.

Question 4 (Module)

From the following particulars, calculate the earnings of workers X and Y and also comment on the labour cost.

Standard time allowed: 20 units per hour

Normal time rate: ₹ 30 per hour

Differential rate to be applied:

80% of piece rate when below standard

120% of piece rate at or above standard

In a particular day of 8 hours, X produces 140 units while Y produces 165 units.

Question 5 (Module)

X, Y and Z are three workers in a manufacturing company and their output during a particular 40 hours week was 96, 111 and 126 units respectively. The guaranteed rate per hour is ₹ 10 per hour, low piece rate is ₹ 4 per unit, and high piece rate is ₹ 6 per unit. High task is 100 units per week. Normal Piece Rate to be taken at ₹ 6 per unit. Compute the total earnings and labour cost per unit under Taylor, Merrick and Gantt Task Bonus Plan.

Question 6 (Module)

During May 2023, there were 21 working days of 8 hours per day. The workforce consists of 10 employees, who all do the same work.

Due to problems in the production system and a machine breakdown, 240 hours were recorded as idle time during the month.

During May, the workforce produced 5,400 units of output. The expected time per unit of output is 15 minutes (= 0.25 hours).

Required: For May 2023, Calculate, (a) the efficiency ratio (b) the capacity utilisation ratio (c) the production volume ratio.

Question 7 (Module)

A workman takes 9 hours to complete a job on daily wages and 6 hours on a scheme of payment by results. His hourly rate is 25 paise. The material cost of the product is ₹ 4 and factory overheads are recovered at 150% of the total direct wages. Calculate the factory cost of the product under following methods:

a) Time rate system b) Halsey Plan c) Rowan Plan

Question 8 (Module)

In a manufacturing concern the daily wage rate is ₹2.50. The standard output in a 6 day week is 200 units representing 100% efficiency. The daily wage rate is paid without bonus to those workers who show up to 66-2/3 % of the efficiency standard. Beyond this there is a bonus payable on a graded scale as below:

82% efficiency	5% bonus
90% efficiency	9% bonus
100% efficiency	20% bonus

Further increase of 1% bonus for every 1% further rise in efficiency. In a 6 day week A produced 180 units; B 164 units; C 200 units; D 208 units and E 130 units. Calculate the earnings of these workers.

Question 9 (Module/ June 2024 S22/ June 2023 S22)

The following particulars for the first week of September, 2021 relate to X and Y two workers employed in a factory:

Particulars	X	Y
a) Job Completed (units)	3,600	4,200
b) Out of above output rejected and unsalable	540	420
c) Time allowed	12 Mts / dozen	3 Hrs / 200 units
d) Basic wage rate per hour	₹ 5	₹ 6
e) Hours worked	45	50

The normal working hours per week are fixed at 42 hours. Bonus is paid @ 2/3 of the basic wage rate for gross time worked and gross output produced without deduction for rejected output. The rate of overtime for first 4 hours is paid at time plus 1/3 and for next 4 hours is paid at time plus ½. From the above data calculate for each employed

a) Number of bonus hours and amount of bonus earned;

b) Total wages earned including basic wages overtime premium and bonus;

c) Direct wages cost per 100 saleable units.

Question 10 (Module)

Basic pay ₹ 5,00,000; Lease rent paid for accommodation provided to an employee ₹ 2,00,000, amount recovered from employee ₹ 40,000, Employer's Contribution to P.F. ₹ 75,000, Employee's Contribution to P.F. ₹ 75,000; Reimbursement of Medical expenses ₹ 67,000, Hospitalisation expenses of employee's family member borne by the employer ₹ 19,000, Festival Bonus ₹ 20,000, Festival Advance ₹ 30,000. Compute the Employee Cost.

Question 11 (Module)

Gross pay ₹10,30,000 (including cost of idle time hours paid to employee ₹ 25,000); Accommodation provided to employee free of cost [this accommodation is owned by employer, depreciation of accommodation ₹ 1,00,000, maintenance charges of the accommodation ₹ 90,000, municipal tax paid for this accommodation ₹ 3,000], Employer's Contribution to P.F. ₹ 1,00,000 (including a penalty of ₹ 2,000 for violation of P.F. rules), Employee's Contribution to P.F. ₹ 75,000. Compute the Employee Cost.

Question 12 (Module)

Measurement of Employee Cost (with special items)

Trial Balance as on 31.3.2022 (relevant extracts only)

Particulars	Amount (₹)	Particulars	Amount (₹)
Materials Consumed	25,00,000	Special Subsidy received from Government towards Employee Salary	2,75,000
Salaries	15,00,000		
Employee Training Cost	2,00,000		
Perquisites to Employee	4,50,000	Recoverable amount from Employee out of perquisites extended	35,000
Contribution to Gratuity Fund	4,00,000		
Lease rent for accommodation provided to employees	3,00,000		
Festival Bonus	50,000		
Unamortised amount of Employee cost related to a discontinued	90,000		

Question 1 (Module)

A factory has 3 production departments (P1, P2, P3) and 2 service departments (S1 and S2). The following overheads and other information are extracted from the books for the month of January 2022.

Expense	Amount (₹)
Rent	6,000
Repair	3,600
Depreciation	2,700
Lighting	600
Supervision	9,000
Fire Insurance for stock	3,000
ESI contribution	900
Power	5,400

Particulars	P1	P2	P3	S1	S2
Area sq ft	400	300	270	150	80
No. of workers	54	48	36	24	18
Wages	18,000	15,000	12,000	9,000	6,000
Value of plant	72,000	54,000	48,000	6,000	-
Stock Value	45,000	27,000	18,000	-	-
Horse power of plant	600	400	300	150	50

Allocate or apportion the overheads among the various departments on suitable basis.

Question 2 (Module)

Overhead incurred	₹ 1,50,000
Overhead recovered	₹ 1,00,000
Cost of sales	₹ 10,00,000
Finished goods	₹ 8,00,000
Work-in-progress	₹ 7,00,000

How the under / over absorbed overhead will be treated?

Question 3 (Module)

In an Engineering Factory, the following particulars have been extracted for the quarter ended 31st December, 2021. Compute the departmental overhead rate for each of the production departments, assuming that overheads are recovered as a percentage of direct wages.

	Production Departments			Service Departments	
	A	B	C	X	Y
Direct Wages ₹	30,000	45,000	60,000	15,000	30,000
Direct Material ₹	15,000	30,000	30,000	22,500	22,500
No. of workers	1,500	2,250	2,250	750	750
Electricity KWH	6,000	4,500	3,000	1,500	1,500
Assets Value	60,000	40,000	30,000	10,000	10,000
No. of Light points	10	16	4	6	4
Area Sq. Yards	150	250	50	50	50

The expenses for the period were:

	Amount (₹)
Power	1,100
Lighting	200
Stores Overheads	800
Welfare of Staff	3,000
Depreciation	30,000
Repairs	6,000
General Overheads	12,000
Rent and Taxes	550

Apportion the expenses of Service Department Y according to direct wages and those of Service Department X in the ratio of 5 : 3 : 2 to the production departments.

Question 4 (Module)

In a machine department of a factory there are five identical machines. From the particulars given below; prepare the machine hour rate for one of the machines.

Space of the department	10,000 Sq. mts.
Space occupied by the machine	2,000 Sq. mts.
Cost of the machine	₹ 20,000
Scrap value of the machine	₹ 300
Estimated life of the machine	13 years
Depreciation charged at	7-1/2% p.a.
Normal running of the machine	2,000 hours
Power consumed by the machine as shown by the meter	₹ 3,000 p.a.

Estimated repairs and maintenance throughout the working life of the machine ₹ 5,200.
Sundry supplies including oil, waste etc. charged direct to the machine amount to ₹ 600 p.a.
Other expenses of the department are:

	Amount (₹)
Rent and Rates	9,000
Lighting (to be apportioned according to workers employed)	400
Supervision	1,250
Other charges	5,000

It is ascertained that the degree of supervision required by the machine is $2/5^{th}$ and $3/5^{th}$ being devoted to other machines. There are 16 workers in the department of whom 4 attended to the machine and the remaining to the other machines.

Question 5 (Module/ June 2023)

AT Ltd engineering Co. having 25 different types of automatic machines, furnishes you the following data for 2021-22 in respect of machine B:

1. Cost of the machine ₹ 50,000
   Life – 10 years Scrap value is Nil
2. Overhead expenses are:
   - Factory Rent ₹ 50,000 p.a.
   - Heating and Lighting ₹ 40,000 p.a.
   - Supervision ₹ 1,50,000 p.a.
   - Reserve Equipment of Machine B ₹ 5,000 p.a.
   - Area of the Factory 80,000 sq. ft.
   - Area occupied by Machine B 3,000 sq. ft.

3. Wages of operator is ₹ 24 per day of 8 hours including all fringe benefits. He attends to one machine when it is under set up and two machines while under operation.
4. Estimated production hours 3,600 p.a.
5. Estimated setup time 400 hours p.a.
6. Power ₹ 0.50 per hour

Prepare a schedule of comprehensive machine hour rate and find the cost of the following jobs:

	Job 1102	Job 1308
Setup time (Hours)	80	40
Operation time (Hours)	130	160

Question 6 (December 2018/December 2023)

SONAX LTD. has three Production Departments and two Service Departments. The overhead distribution sheet showed the following totals:

	₹
Production Departments:	
A	25,000
B	31,000
C	28,000
Service Departments:	
S	8,000
T	13,900

Required:

Using the following bases of apportionment, distribute the cost of service departments under Simultaneous Equation Method:

	A	B	C	S	T
Department S	30%	20%	40%	-	10%
Department T	40%	15%,	25%	20%	-

Question 7 (June 2023 S22)

M/s Lotus Inc. manufactures the fountain pen called 'Pluto'. In the manufacturing of 'Pluto', the overheads were recovered at a pre-determined rate of 25 per man-day. The other information for the month of April, 2023 is as under:

Total factory overheads incurred	83,00,000
Man-days actually worked	2,97,200
Total units manufactured	80,000
Units sold during the month	60,000
Incomplete units (60% complete)	60,000

On analysing the reasons, it was found that 40% of the unabsorbed overheads were due to defective planning and the rest were attributable to increased overhead costs.

Required:

You, as a qualified cost accountant, are asked to suggest how would unabsorbed overheads be treated in Cost Accounts

Question 8 (December 2023 S22)

ACB Ltd. manufactures product "A", at the rate of 80 pieces per hour. The company has been producing and selling 1,60,000 units annually since last five years. However, during the current year, the company was able to produce 1,46,000 units only. The company's annual fixed overheads for the current year amounted to 5,84,000. The company works on single shift only at 8 hours per day and 6 days a week. The company had declared 13 holidays. The quarterly preventive maintenance and repairs work involved 77 hours. D

Required:

(i) Calculate the Maximum, Practical, Normal and Actual Capacities for the current year in terms of hours.

(ii) Calculate Idle Capacity Hours.

(iii) Compute Hourly Rate for Recovery of Overhead Rates for each of the capacities computed at (i) above.

(Assume 365 days and 52 Sundays during the current year)

Question 9 (December 2024)

DOZIN Ltd. manufactures a single product. It recovers factory overheads at a pre-determined rate of 20 per man day.

During the year 2023-24, the total factory overheads incurred and the man-days actually worked were 35.50 lakhs and 1.50 lakh days respectively. Out of the amount of 35.50 lakhs, 2.00 lakhs were in respect of wages for strike period and 1.00 lakh was in respect of expenses of previous year booked in this current year. During the period, 50000 units were

sold. At the end of the period, 12000 completed units were held in stock but there was no opening stock of finished goods. Similarly, there was no stock of uncompleted units at the beginning of the period but at the end of the period there were 20000 uncompleted units which may be treated as 65% complete in all respects.

On investigation, it was found that 40% of the unabsorbed overheads were due to factory inefficiency and the rest were attributable to increase in the cost of indirect materials and indirect labour.

Required:

(i) Calculate the amount of unabsorbed overheads during the year 2023-24.

(ii) Analyze the accounting treatment of unabsorbed overheads in cost Accounts.

Question 1 (Module)

Lorry starts with a load of 20 MT of Goods from Station 'A'. It unloads 8 MT in Station 'B' and balance goods in Station 'C'. On return trip, it reaches Station 'A' with a load of 16 MT, loaded at Station 'C'. The distance between A to B, B to C and C to A are 80 Kms, 120 Kms and 160 Kms, respectively. Compute "Absolute MT- Kilometer" and "Commercial MT – Kilometer"

Question 2 (December 2022)

SANT TRAVELS AGENCY is a bus and operates a tourist service on daily basis. The bus starts from New City to Rest Village and returns to New City the same day. The distance between New City and Rest Village is 250 km. This trip operates for 10 days amonth. The bus also plies for another 10 days between New City and Kolanpur and returns to New City the same day, the distance between these two places is 200 km. The bus makes local sight-seeing trips for 5 days in a month covering a total distance of80 km per day. The following data are given:

Cost of Bus	₹ 35 lakh. Depreciation 25% (Straight line method)
Driver's Salary	₹ 16,000 p.m
Conductor's Salary	₹ 10,000 p.m.
Part-time clerk's salary	₹ 6,000 p.m
Insurance	₹ 18,000 p.a
Diesel consumption 5 km per litre @ ₹ 65 per litre	
Token Tax	₹ 30,000 p.a.
Permit fee	₹ 4,500 p.m
Sundry Expenses	₹ 1,000 for the month
Lubricant oil	₹ 500 for every 200 km
Repairs and maintenance	₹ 11,000 p.m.

The normal capacity of the bus is 50 passengers. While playing to and from Rest Village the bus occupies 90% of the capacity and 80% when it plies between New City to Kolanpur (both ways). In New City, the bus runs at full capacity. Passenger Tax is 15% of the net takings of the travel firms. Ignore interest and taxes.

Required:

Calculate the rate to be charged to Rest Village and Kolanpur from New City per passenger if the profit required to be earned is 25% of the takings of the Agency.

Question 3 (June 2023/December 2023 set 2/June 24 set 1)

Ms Trans India Transport Company is running 5 buses between two towns which are 60 kms away. Seating capacity of each bus is 40 passengers. The following information is obtained from its books for the month of January, 2023:

Wages of drivers, conductors and cleaners	80,000
Salaries of office and supervisory staff	25,000
Diesel, oil and other lubricants	60,000
Repairs and maintenance	12,000
Taxes, insurance etc	20,000
Depreciation of buses	35,000
Interest and other charges	20,000

Actual passengers carried were 80% of the seating capacity. All the 5 buses ran on all the days of the month. Each bus made two to and from round trip per day

Required: Prepare the Operating Cost Statement and determine the cost per passenger km. foreach bus.

Question 4 (December 2023)

MEDCO HEALTH CARE runs an intensive Medical Care Unit. For this purpose, it has hired a building at a rent of ₹ 50,000 per month with the agreement to bear the repairs and maintenance charges also.

The unit consists of 100 beds and 5 more beds can comfortably be accommodated when the situation demands. Though the unit is open for patients all the 365 days in a year, scrutiny of accounts for the year 2022 reveals that only for 120 days in the year, the unit had the full capacity of 100 patients per day and for another 80 days, it had, on an average only 40 beds occupied per day. But there were occasions when the beds were full, extra beds were hired at a charge of ₹ 50 per bed per day, This did not come to more than 5 beds above the normal capacity on any one day. The total hire charges for the extra beds incurred for the whole year amounted to ₹ 20000.

The unit engaged expert doctors from outside to attend on the patients and the fees were paid on the basis of the number of patients attended and time spent by them which on an average worked out to 30,000 per month in the year 2022

The permanent staff expenses and other expenses of the unit were as follows:

2 Supervisors each at a per month salary of	5,000
4 nurses each at a per month salary of	3,000
2 ward boys each at a per month salary of	1,500

Other expenses for the year were as under:

Repairs and Maintenance	28,000

Food supplied to patients	4,40,000
Caretaker and other services for patients	1,25,000
Laundry charges for bed linen	1,40,000
Medicines supplied	2,80,000
Cost of Oxygen etc. other than directly borne for treatment of patients	75,000
General Administration Charges allocated to the unit	71,000

Required: =

(i) What is the profit per patient day made by the unit in the year 2022 if the unit recovered an overall amount of ₹ 200 per day on an average from each patient.

(ii) The unit wants to work on a budget for the year 2023, but the number of patients requiring medical care is a very uncertain factor, assuming that same revenue and expenses prevail in the year 2023 in the first instance, work out the number of patient days required by the unit to break even.

Question 5 (June 2024)

ACODA Ltd. runs a holiday home in a small hill station. It has three types of suites for its customers with a capacity of 200 single rooms, 100 double rooms and 60 triple rooms. The average occupancy of single, double and triple rooms is expected to be 80%, 80% and 60% respectively. The rent for double room has been fixed at 125% and for triple room 150% of the rent of a single room. The costs are as under:

Variable costs:

Single rooms	₹220 each per day
Double rooms	₹ 340 each per day
Triple rooms	₹ 400 each per day

Fixed costs:

Single rooms	₹ 120 each per day
Double rooms	₹ 240 each per day
Triple	₹ 320 each per day

The holiday home runs throughout the year of 365 days and earns a margin of 20% on rent of rooms.

Required:

Calculate the rent to be charged for each type of suite (room).

Question 1 (Module)

The standard cost of one of the products of the company shows the following standards:

Materials	Quantity (kg)	Price (₹)
A	40	76
B	10	50
C	50	20

The standard input mix is 100 kg and the standard output of the finished product is 90 kg

The actual results for the period are:

Materials	Quantity (kg)	Price (₹)
A	1,95,000	80
B	42,500	52
C	2,25,000	21

Actual output of the finished product is 4,18,500 kg

You are required to calculate the material variances.

Question 2 (December 2017/December 2018/June 2023 S22/December 2018 set 1)

The details regarding the composition and the weekly wage rates of labour force engaged on a job scheduled to be completed in 30 weeks are as follows:

Category of Workers	Standard		Actual	
	No. of Workers	Weekly Wage Rate per worker	No. of Workers	Weekly Wage Rate per worker
Skilled	75	60	70	70
Semi-skilled	45	40	30	50
Unskilled	60	30	80	20

The work is actually completed in 32 weeks. Calculate the following Labour Variances:

(a) Labour Cost Variance;

(b) Labour Rate variance;

(c) Labour Efficiency Variance;

(d) Labour Revised Efficiency Variance;

(e) Labour Mix Variance.

Question 3 (December 2018 set 2)

From the following information, Calculate Mix, Price and Usage Variance

	Quantity (Kg)	Unit Rate (₹)	Total (₹)
Standard			
Material X	20	4	40
Material Y	40	6	120
Material Z	40	12	240
Actual			
Material X	10	6	15
Material Y	20	12	120
Material Z	30	10	150

Question 4 (June 2023 set 1)

Following information is given regarding standard composition and standard rates of a gang workers:

Standard composition	Standard hourly rate
100 Men	₹0.625
50 Women	₹0.400
50 Boys	₹0.350

According to given specifications, a week consists of 40 hours and standard output for a week is 1,000 units.

In a particular week, gang consisted of 130 men, 40 women and 30 boys and actual wages were paid as follows:

Men @ ₹0.6 per hour Women @ ₹0.425

Boys @ ₹0.325 per hour

Two hours were lost in the week due to abnormal sale time. Actual production was 960 units in the week.

Find out-

(i) Labour rate variance,

(ii) Labour mix variance,

(iii) Labour idle time variance,

(iv) Labour yield variance,

(v) Labour efficiency variance,

(vi) Labour cost variance.

Question 1 (Module)

Two businesses AB Ltd and CD Ltd sell the same type of product in the same market. Their budgeted profits and loss accounts for the year ending 30th June, 2021 are as follows:

	AB Ltd		CD Ltd	
Sales		1,50,000		1,50,000
Less: Variable costs	1,20,000		1,00,000	
Fixed Cost	15,000	1,35,000	35,000	1,35,000
Profit		15,000		15,000

You are required to calculate the BEP of each business and state which business is likely to earn greater profits in the following conditions:

(a) Heavy demand for the product

(b) Low demand for the product

Question 2 (Module/June 2017 set 1/June 2018 set 2/Dec 2023 old)

The sales turnover and profit during two periods were as follows:

Period	Sales (₹)	Profit (₹)
1	2,00,000	20,000
2	3,00,000	40,000

What would be probable trading results with sales of ₹ 1,80,000? What amount of sales will yield a profit of ₹ 50,000?

Question 3 (Module/June 2020 set 1)

The following results of a company for the last years are as follows:

Year	Sales (₹)	Profit (₹)
2020	1,50,000	20,000
2021	1,70,000	25,000

You are required to calculate:

(i) P/V Ratio

(ii) BEP

(iii) The sales required to earn a profit of ₹ 40,000

(iv) Profit when sales are ₹ 2,50,000

(v) Margin of safety at a profit of ₹ 50,000, and

(vi) Variable Costs of the two periods

Question 4 (December 2017)

There are three similar plants under one Corporate Management who wants them to be merged for better operation. The following are the details relating to these plants

	Plant A	Plant B	Plant C
Capacity in Operation	100%	70%	50%
	(Rs. in lakhs)		
Turnover	300	280	150
Variable Cost	200	210	75
Fixed Cost	70	50	62

You are required to calculate:

(i) Capacity of merged plant to be operated to break-even;

(ii) Profitability of working at 75% capacity;

(iii) The turnover from the merged plant to give a profit of Rs. 28 lakhs.

Question 5 (June 2019/December 2023 set 2)

MODERN LTD. has three departments X, Y and Z, each of which makes a different product. The budgeted data for the coming year are as follows:

	Amount (Rs.)		
Particulars	X	Y	z
Sales	22,40,000	11,20,000	16,80,000
Direct materials	2,80,000	1,40,000	2,80,000
Direct labour	1,12,000	1,40,000	4,48,000
Direct expenses	2,80,000	1,40,000	5,60,000
Fixed cost	5,60,000	2,80,000	5,60,000

The management of the company is considering to close down department 'Z'. There is a possibility of reducing fixed cost by Rs. 1,50,000 if department 'Z' is closed down.

Advise the management whether or not department 'Z' should be closed down.

Question 6 (December 2019)

PANCHAL LTD, a toy manufacturer earns an average net profit of Rs. 1.80 per piece on a selling price of Rs. 16.50 by producing and selling 12000 pieces or 60% of the capacity. His cost of sales per toy is as under:

Direct material	4.25
Direct wages	1.60
Works Overheads (40% fixed)	7.15
Sales Overheads (30% fixed)	0.90

During the current year, he intends to produce the same number of toys but anticipates that fixed cost will go up by 10%. Direct wages and material will increase by 6% and 4% respectively but he has no option of increasing the selling price. Under this situation, he obtains an offer for further sale of 20% of the capacity.

Required:

What minimum price you will recommend for acceptance of the offer to ensure the manufacturer an overall profit of Rs. 30,100?

(Show your calculations upto 3 decimal points.)

Question 7 (December 2021)

ESPM Ltd sold 5,50,000 units of its product at Rs 75 per unit. Variable costs are Rs 35 per unit (manufacturing costs of Rs 28 and selling cost Rs 7 per unit). Fixed costs are incurred uniformly throughout the year and amount to Rs 70,00,000 (including depreciation of Rs 30,00,000). There is no opening or closing stock.

(i) Estimate the breakeven sales level quantity and cash breakeven sales level quantity.(2)

(ii) What is the P/V ratio ?

(iii) The sales level to be achieved an after-tax income (PAT) of Rs 5,00,000 would be how much? (Assume 40% corporate Income Tax rate).

Question 8 (June 2023)

M/s Monn light ltd. Produces three products A, B and C and furnishes the following information for the year 2022-23

Particulars	Products		
	A	B	C
Selling price per unit	500	375	250
Profit volume ratio	12%	20%	40%
Raw material content as a % of variable cost	50%	50%	50%
Maximum market demand (units)	22,000	20,000	12,000

Fixed costs are estimated at 20 lakhs. The firm uses same raw material in all the three products. Raw material is in 'Short Supply'. The firm has a quota for the supply of raw materials of the value of 61 lakhs for the year 2022-23 for the production of three products to meet sales demand.

Required:

Determine the optimal product mix and ascertain the maximum profit therefrom.

Question 9 (December 2023)

KONT LTD., a toy company is currently selling 24000 toys annually. It provides the following details for the year ended March 31, 2023.

Selling price per Toy	400
Variable cost per Toy	250
Fixed Costs:	
Staff salaries for the year	12,00,000
General office costs for the year	8,00,000
Advertising costs for the year	4,00,000

You are required to:

(i) Calculate the Break-even Point and Margin of Safety in Sales revenue and number of Toys Sold.

(ii) If it is decided to introduce selling commission of 30 per Toy how many toys would require to be sold in a year to earn a net income₹ 1,50,000?

(iii) Assuming that for the year 2023-24, an additional staff salary of 3,30,000 is anticipated and price of a toy is likely to be increased by 15%. What should be the Break-even point in number of toys?

Question 10 (December 2023/December 2017 set 1)

ZESMIN LTD., a manufacturing company, manufactures a product, currently utilizing 80% capacity with a turnover of ₹ 8,00,000 at 25 per unit. The cost data are as under:

Material cost 7.50 per unit, Labour Cost 6.25 per unit. Semi-variable cost (including variable cost of 3.75 per unit) ₹1,80,000

Fixed Cost 90,000 upto 80% level of output, beyond this an additional 20,000 will be incurred.

You are required to calculate:

(i) Activity level at Break-even point

(ii) Number of units to be sold to earn a net income of 8% of sales

(iii) Activity level needed to earn a profit of 95,000

(iv) What should be the selling price per unit, if break-even- point is to be brought down to 40% activity level?

Question 11 (June 2023 S22/June 2020 set 1)

Mr. Lurvey is an umbrella manufacturer and marks an average Net Profit of 5 per piece on a selling price of 28.60 by producing and selling 12,000 pieces or 60% of the capacity. His cost of sales is-

Particulars

Direct material	7.00
Direct wages	2.50
Works overheads (50% fixed)	12.50
Sales overheads (25% variable)	1.60

During the current year, he intends to produce the same number but anticipates that fixed charges will go up by 10% while direct labour rate and material will increase by 8% and 6% respectively but he has no option of increasing the selling price.

Under this situation, he obtains an offer for further 20% of the capacity. Mr. Lurvey approaches you as a cost accountant and asks you to ADVISE the minimum price per unit for acceptance the offer if he wants to ensure an overall profit of ₹ 70,000.

Question 12 (December 2023 S22)

New Vistas Ltd. is manufacturing three household products X, Y and Z and selling them in competitive market. The following details regarding current demand, selling price and cost structure are extracted from the records of the company for the year ending March, 2023:

Particulars	X	Y	Z
Expected demand (units)	20,000	24,000	40,000
Selling price per unit	40	32	20
Variable cost per unit			
Direct materials (20/kg.)	12	8	4
Direct labour (30/hr.)	6	6	3
Variable overheads	4	2	2
Fixed overheads per unit	10	8	4

The company is frequently affected by acute scarcity of raw material and high labour turnover. During the next year, it is expected to have one of the following situations:

(a) Raw materials available will be only 24,200 kg.

(b) Direct labour hours available will be only 10,000 hours.

Required:

Calculate Net Profit of the company in each of the above situations.

Question 13 (June 2024 S22)

Aristocrat Ltd. While operating at 70% level of activity produces and sells two products A and B. The cost and sales data of these two products are as under:

	₹ Per unit	
	Product A	Product B
Units produced and sold	3000	2000
Direct material	10	20

Direct Labour	20	20
Factory overheads (40% fixed)	25	15
Admin. & selling overheads (60% fixed)	40	25
Total cost per unit	95	80
Selling price per unit	115	95

Factory overheads are absorbed on the basis of machine hour which is the limiting factor. The machine hour rate is 10 per hour.

Aristocrat Ltd. receives an offer from USA for the purchase of product A at a price of 87.50 per unit. Alternatively, the company has another offer from UK for the purchase of product B at a price of 77.50 per unit. In both the cases, a special packing charge of 2.50 per unit has to be borne by the company. The company can accept either of the two export orders by utilising the balance 30% of its capacity.

Required:

Examine and advise the company as to which proposal should be accepted showing total profit in your support after incorporating the export proposal suggested by you.

Question 14 (December 2024 S22)

Sentor ltd. A manufacturing company, manufactures a single product with a capacity of 150000 units per annum. The summarized profitability statement for the year is as under:

		₹	₹
Sales: 100000 units @ 15 per unit			15,00,000
Cost of sales:			
Direct material		3,00,000	
Direct labour		2,00,000	
Production overheads	Variable	60,000	
	Fixed	3,00,000	
Administration overheads (fixed)		1,50,000	
Selling & distribution overheads	Variable	90,000	
	Fixed	1,50,000	12,50,000
	Profit		2,50,000

Required:

Evaluate the following options: (Each option is to be treated independently).

(i) Calculate the amount of sales required to earn a target profit of 25% on sales, if the packing is improved at a cost of ₹ 1 per unit.

(ii) There is an offer from a large retailer to purchase 30000 units per annum, subject to providing a packing with a different brand name at a cost of 2 per unit. However, in this

case there will be no selling and distribution expenses. Also this will not, in any way, affect the company's existing business. Identify the break-even price for this additional offer.

(iii) If an expenditure of ₹3,00,000 is made on advertising, the sales would increase from the present level of 1,00,000 units to 1,20,000 units at a price of 18 per unit. Will that expenditure be justified?

(iv) If the selling price is reduced by 2 per unit, there will be 100% capacity utilization. Will the reduction of selling price be Justified?

Question 15 (June 2023 old)

Powerful Ltd. has the option of buying one machine. Two machines are available, Machine Electrode and Machine Force. From the information given below, calculate-

(i) the break-even point for each; (ii) the level of sales at which both are equally profitable, and (iii) the range of sales at which one is more profitable than the other:

Particulars	Machine Electrode	Machine Force
Output p.a. (units)	1,00,000	1,00,000
Fixed costs p.a. (₹)	3,00,000	1,60,000
Profit at full capacity (₹)	3,00,000	2,40,000

Both the machines will produce identical products. The annual market demand for such product is 1,00,000 units @ ₹10 per unit.

Question 1 (Module)

ABC Ltd a newly started company wishes to prepare Cash Budget from January. Prepare a cash budget for the first six months from the following estimated revenue and expenses.

Month	Total Sales (₹)	Materials (₹)	Wages (₹)	Overheads	
				Production (₹)	Selling & Distribution (₹)
January	20,000	20,000	4,000	3,200	800
February	22,000	14,000	4,400	3,300	900
March	28,000	14,000	4,600	3,400	900
April	36,000	22,000	4,600	3,500	1,000
May	30,000	20,000	4,000	3,200	900
June	40,000	25,000	5,000	3,600	1,200

Cash balance on 1st January was ₹ 10,000. A new machinery is to be installed at ₹ 20,000 on credit, to be repaid by two equal installments in March and April, sales commission @ 5% on total sales is to be paid within a month following actual sales.

₹ 10,000 being the amount of 2nd call may be received in March. Share premium amounting to ₹ 2,000 is also obtained with the 2nd call may be received in March. Period of credit allowed by suppliers – 2 months; period of credit allowed to customers – 1 month, delay in payment of overheads 1 month. Delay in payment of wages ½ month. Assume cash sales to be 50% of total sales.

Question 2 (Module/December 2023/June 2024 set 1)

The monthly budgets for manufacturing overheads of a concern for two levels of activity were as follows :

Capacity	60%	100%
Budgeted Production (units)	600	1,000
	(₹)	(₹)
Wages	1,200	2,000
Consumable stores	900	1,500
Maintenance	1,100	1,500
Power and fuel	1,600	2,000
Depreciation	4,000	4,000
Insurance	1,000	1,000
Total Cost	9,800	12,000

You are required to:

i. Indicate which of the items are fixed, variable and semi-variable.

ii. Prepare a budget for 80% capacity, and

iii. Find the total cost, both fixed and variable per unit of output at 60%, 80% and 100% capacity.

Question 3 (Module/December 2017)

Three Articles X, Y and Z are produced in a factory. They pass through two cost centers A and B. From the data furnished compile a statement for budgeted machine utilization in both the centers.

(a) Sales budget for the year

Product	Annual Budgeted Sales (units)	Opening Stock of finished products (units)	Closing Stock
X	4,800	600	Equivalent to 2 months sales
Y	2,400	300	-do-
Z	2,400	800	-do-

(b) Machine hours per unit of product

Product	Cost Centers	
	A	B
X	30	70
Y	200	100
Z	30	20

(c) Total number of machines

Cost Centre	
A	284
B	256
Total	540

(d) Total working hours during the year: Estimated 2,500 hours per machine.

Question 4 (June 2018/June 2023/June 2024)

Summarised below are the revenue and expenditure figures of AB Ltd. for the month of March to August,2017:

Month	Sales (Rs.)	Purchases (Rs.)	Wages (Rs.)	Expenses (Rs.)
March	6,50,000	4,00,000	1,20,000	50,000
April	7,00,000	4,80,000	1,50,000	50,000
May	7,50,000	4,50,000	1,50,000	60,000
June	8,00,000	4,80,000	1,80,000	60,000
July	8,20,000	4,00,000	1,80,000	80,000
August	8,90,000	5,00,000	2,00,000	80,000

The following further information is available:

(i) 10% Purchases and sales are on cash basis.

(ii) Advance payment of income tax in August, 2017 Rs. 50,000.

(iii) Plant purchased and price to be paid in June, 2017 Rs. 1,00,000.

(iv) Time lag-

Credit sales	2 months
Credit purchases	1 month
Wages	½month
Expenses	½month

Required:

Prepare a Cash Budget for 3 months starting on 1st June, 2017 when cash balance is Rs. 2,00,000.

Question 5 (December 2021)

QBZ Limited produces and sells a single product. Sales budget for calendar year 2020 by a quarter is as under:

Quarters	1	2	3	4
No. of units to be sold	36,000	44,000	50,000	54,000

The year is expected to open with an inventory of 12,000 units of finished products and close with inventory of 16,000 units. Production is customarily scheduled to provide for 70% of the current quarter's sales demand plus 30% of the following quarter demand. The budgeted selling price per unit is Rs 80 . The standard cost details for one unit of the product are as follows:

Variable Cost Rs 69.00 per unit

Fixed Overheads @ Rs 4 per hour based on a budgeted production volume of 2,20,000 direct labour hours for the year.

Fixed overheads are evenly distributed through-out the year.

(i) What is the Budgeted Total Production (in unit) for the year 2020?

(ii) In which quarter of the year, company expected to achieve break-even point?

Question 6 (June 2019/June 2023 S22/June 2025 set 1/June 2020 set 1)

ANKRITI LTD. manufactures product X and product Y during the year ending on 31st March, 2019. It is expected to sell 7500 kg of product X and 37500 kg of product Y @ Rs. 60 and Rs. 32 per kg respectively.

The direct materials A, B and C are mixed in the proportion of 4:4:2 in the manufacture of Product X and in the proportion of 3:5:2 in the manufacture of product Y. The actual and budget inventories for the year are as follows:

Particulars	Opening Stock (kg)	Expected Closing Stock (kg)	Anticipated Cost per kg (Rs.)
Material A	3000	2400	10
Material B	2500	5800	8
Material C	16000	17300	6
Product X	1500	2000	—
Product Y	3000	3500	—

Required:

Prepare the Production Budget and Materials Budget showing the purchase cost of materials for the year ending 31st March, 2019.

Question 7 (December 2024)

A department of SONEX Ltd., a manufacturing company, attains sales of 6,00,000 at 80% of its normal capacity. Its expenses are given below:

Office salaries	90,000
General expenses	2% of sales
Depreciation	7,500
Rent and rates	8,750
Distribution costs:	
Wages (₹)	15,000
Rent	1% of sales
Other expenses	4% of sales
Selling Costs:	
Salaries	8% of sales
Travelling expenses	2% of sales
Sales office	1% of sales
General expenses	1% of sales

Note: All fixed costs are assumed to remain unchanged, even at 110% capacity.

Required:

Prepare Flexible, Administration, Selling and Distribution Costs Budget, operating at 90 per cent, 100 per cent and 110 per cent of normal capacity for the month of September 2024.

Question 8 (December 2019 set 2)

Prepare Sales Overhead Budget for the month of January, February and March for the estimates given below:

	(₹)
Advertisement	3,000
Salaries of the Sales Department	4,000
Expenses of the Sales Department	2,000
Counter Salesmen's Salaries and Dearness Allowance	6,000

Counter Salesmen's commission is 2% on their sales.

Travelling Salesmen's commission at 10% on their sales and expenses at 5% on their sales.

The sales during the period were estimated as follows:

Month	Counter Sales (₹)	Travelling Salesmen"s Sales (₹)
January	1,00,000	20,000
February	1,50,000	30,000
March	1,75,000	40,000

Question 9 (June 2023 old)

The following are the estimated sales of S Ltd. for eight months ending 30.11.2022:

Months	Estimated Sales (units)
April 2022	1,20,000
May 2022	1,30,000
June 2022	90,000
July 2022	80,000
August 2022	1,00,000
September 2022	1,20,000
October 2022	1,40,000
November 2022	1,20,000

As a matter of policy, the company maintains the closing balance of finished goods and raw materials as follows:

Stock item	Closing balance of a month
Stock item	50% of the estimated sales for the next month
Raw Materials	Estimated consumption for the next month

Every unit of production requires 2 kg. of raw material costing ₹5 per kg.

Prepare Production Budget (in units) and Raw Material Purchase Budget (in units and cost) of the company for the half year ending 30 September, 2022.

Question 1 (Module)

The net profits of a manufacturing company appeared at ₹ 64,500 as per financial records for the year ended 31st December, 2022. The cost books however, showed a net profit of ₹ 86,460 for the same period. A careful scrutiny of the figures from both the sets of accounts revealed the following facts.

	Particulars	₹
1.	Income tax provided in financial books	20,000
2.	Bank Interest (Cr) in financial books	250
3.	Work overhead under recovered	1,550
4.	Depreciation charged in financial records	5,600
5.	Depreciation recovered in cost	6,000
6.	Administrative overheads over-recovered	850
7.	Loss due to obsolescence charged in financial accounts	2,800
8.	Interest on investments not included in cost accounts	4,000
9.	Stores adjustments (Credit in financial books)	240
10.	Loss due to depreciation in stock value	3,350

Prepare Reconciliation Statement.

Question 7 (Module)

The following represent the Trading and Profit & Loss Account of a manufacturer of a standard fire extinguisher:

Dr. Trading and Profit & Loss Account Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Material (used) A/c	29,150.0	By Sales A/c	75,000.000
To Productive wages A/c	18,610.00	By Stock of Finished Goods A/c By	1,812.50
To Factory expenses A/c	14,055.00	Work in progress A/c	
To Gross Profit c/d	20,527.50	- Materials	2,800.00
		- Labour	1,560.00
		- Overheads	1,170.00
	82,342.50		82,342.50
To Administration expenses A/c	13,650	By Gross Profit b/d	20,527.50
To Net Profit	6,877.50		
	20,527.50		20,527.50

1,550 Extinguishers were manufactured during the year, and 1,500 were sold during the same period. The cost records showed that Factory overheads work out at ₹ 8.25 and Administrative Overheads at ₹ 9.0625 per article produced; the Cost Accounts showing an estimated total profit of ₹ 7,031.25 for the year.

From the forgoing information you are required to prepare

a) Factory Overhead Control Account

b) Administration Overhead Control Account in Costing books and

c) An account showing reconciliation between the total net profit as per the Cost Accounts and the net profit shown in Financial Books.

Question 8 (June 2017)

From the following particulars calculate the profit as per cost records and also prepare a reconciliation statement, if the profit as per financial accounts for the year ending 31st March, 2017 was ₹1,35,525:

Particulars	₹	₹
Opening stock of raw materials		50,000
Opening stock of finished goods		1,50,000
Purchase of raw materials		3,50,000
Direct wages		1,50,000
Factory lighting	3,000	
Factory rent	24,000	
Power and fuel	30,000	
Indirect wages	2,500	
Depreciation on plant & machinery	50,000	
Oil waste etc.	2,000	
Work manager's salary	23,000	
Miscellaneous factory expenses	1,250	1,35,750
Office rent	18,000	
Office lighting	600	
Depreciation on office appliances	2,000	
Office staff salaries	20,000	40,600
Closing stock of finished goods		50,000
Closing stock of raw materials		75,000
Donations		10,000

Factory overhead is charged at 20% on prime cost and office and administrative expenses at 50% of factory overhead. The selling price is fixed by adding 25% on the total cost of manufactured and finished articles sold. Assume no WIP.

Question 9 (December 2017)

The following is the Trading & Profit and Loss Account of Ram & Co.

Particulars	Rs.	Particulars		Rs.
To Materials consumed	23,01,000	By Sales (30000 units)		48,75,000
To Direct wages	12,05,750	By Stock of Finished goods (1000 units)		1,30,000
To Production overheads	6,92,250	By W.I.P: Material	55,250	
		Wages	26,000	
		Prod. O. H.	16,250	97,500
To Administration Overheads	3,10,375	By Interest on Bank deposit		65,000
To Selling & Distribution Overheads	3,68,875	By Dividends		3,90,000
To Preliminary expenses written off	22,790			
To Goodwill written off	45,000			
To Fines	3,250			
To Interest of mortgage	13,000			
To Loss on sale of machine	16,250			
To Taxation	1,95,000			
To Net Profit	3,83,960			
	55,57,500			55,57,500

Ram & Co. manufactures a standard unit. The cost accounting records of the firm shows the following information:

(i) Production overheads have been charged at 20% on prime cost.

(ii) Administration overheads have been recovered at Rs. 9.75 per finished unit.

(iii) Selling and distribution overheads have been recovered at Rs. 13 per unit sold.

Required:

(i) Prepare a statement showing cost and profit as per cost records.

(ii) Prepare a statement reconciling the profit disclosed by cost accounts with that shown in financial accounts.

Question 14 (December 2022)

ROS Ltd. showed a Net Loss of 35,400 as per their Cost Accounts for the year ended 31st March, 2022. However, the Financial Accounts disclosed a net profit of 67,800 for the same period. The following information was revealed as a result of scrutiny of the figures of cost accounts and financial accounts:

Administrative overhead under recovered	25,500
Factory overhead over recovered	1,35,000
Depreciation under charged in Cost Accounts	26,000
Dividend received	20,000
Loss due to obsolescence charged in Financial Accounts	16,800

Income Tax provided	43,600
Bank interest credited to Financial Accounts	13,600
Value of Opening Stock:	
In Cost Accounts	1,65,000
In Financial Accounts	1,45,000
Value of Closing Stock:	
In Cost Accounts	1,25,500
In Financial Accounts	1,32,000
Goodwill written-off in Financial Accounts	25,000
Notional rent of own premises charged in Cost Accounts	60,000
Provision for doubtful debts in Financial Accounts	15,000

Prepare a reconciliation statement by taking costing net loss as the base.

Question 16 (June 2023 S22)

The following information is available from the financial books of M/s Jyoti Ltd. having a normal production capacity of 60,000 units for the year ended 31st March, 2023:

(i) Sales 10,00,000 (50,000 units).

(ii) There was no opening and closing stock of finished units.

(iii) Direct material and direct wages costs were ₹ 5,00,000 and 2,50,000 respectively.

(iv) Actual factory expenses were ₹ 1,50,000 of which 60% are fixed.

(v) Actual administrative expenses were ₹ 45,000 which are completely fixed.

(vi) Actual selling and distribution expenses were 30,000 of which 40% are fixed.

(vii) Interest and dividends received 15,000.

You are required to:

(a) Find out profit as per financial books for the year ended 31st March, 2023.

(b) Prepare the cost sheet and ascertain the profit as per cost accounts for the year ended 31st March, 2023 assuming that the indirect expenses are absorbed on the basis of normal production capacity.

(c) Prepare a statement reconciling profits shown by financial and cost books

Question 17 (December 2024 S22/December 2019 set 2/June 2025 set 1)

The following information is available from the Financial Books of SONT Ltd. newly established company for the year ended 31st March 2024.

Direct Material Consumption	50,00,000
Direct Wages	30,00,000
Factory Overhead	16,00,000
Administrative Overhead	7,00,000

Selling and Distribution Overhead	9,60,000
Bad Debts	80,000
Preliminary Expenses written off	40,000
Legal Charges	10,000
Dividends Received	1,00,000
Interest Received on Deposits	20,000
Sales (120000 units)	1,20,00,000
Closing Stock:	
Finished Goods (4000 units)	3,20,000
Work-in-progress	2,40,000
Profit (Net) for the year 2023-24	12,90,000

The cost accounts for the same period reveal that the direct material consumption was 56,00,000. Factory overhead is recovered at 20% on prime cost.

Administration overhead is recovered at 6 per unit of production. Selling and distribution overheads are recovered at 8 per unit sold.

Required:

(i) Prepare the Profit and Loss Accounts both as per financial records and as per cost records.

(ii) Reconcile the profits as per the two records.

Question 1 (Module)

The following Trial Balance was extracted on 31st December, 2022 from the books of Swastik Co. Ltd contractors:

Particulars	Dr Amount (₹)	Cr Amount (₹)
Share Capital:		
Shares of ₹ 10 each		3,51,800
Profit & Loss Account as on 1.1.2021		25,000
Provision for Depreciation on Machinery		63,000
Cash Received on account Contract – 7		12,80,000
Creditors		81,200
Land and Buildings (Cost)	74,000	
Machinery (Cost)	52,000	
Bank	45,000	
Contract 7:		
Materials	6,00,000	
Direct Labour	8,30,000	
Expenses	40,000	
Machinery on site (cost)	1,60,000	
	18,01,000	**18,01,000**

Contract 7 was begun on 1st January, 2022. The contract price is ₹ 24,00,000 and the customer has so far paid ₹ 12,80,000 being 80% of the work certified.

The cost of the work done since certification is estimated at ₹ 16,000. On 31st December, 2022, after the Trial Balance was extracted, machinery costing ₹ 32,000 was returned to stores, and materials then on site were value at ₹ 27,000. Provision is to be made for direct labour due ₹ 6,000 and for depreciation of all machinery at 12.5% on cost. You are required to prepare:

(a) Contract Account;

(b) Statement of Profit, if any, to be properly credited to profit and loss account for 2022 and

(c) Balance Sheet of Swastik Co. Ltd as on 31st December, 2022.

Question 2 (Module/June 2019 set 1)

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

The following information is supplied regarding the contract which is incomplete on 31st March, 2022.

Cost Incurred	Amount (₹)
Fabrication cost to date:	
Direct Materials	2,80,000
Direct Labour	90,000
Overheads	75,000
	4,45,000
Erection cost to date	15,000
Total	4,60,000
Contract Price	8,19,000
Cash received on account	6,00,000
Technical estimate of work completed to date:	
Fabrication: Direct Materials	80%
Direct Labour and Overheads	75%
Erection	25%

You are required to prepare a statement for submission to the management indicating
(a) The estimated profit on the completion of the contract;
(b) The estimated profit to date on the contract.

Question 3 (Module/June 2019/December 2021/June 2023 old/December 2023 set 1)

Deluxe Limited undertook a contract for ₹ 5,00,000 on 1st July 2021. On 30th June 2022, when the accounts were closed, the following details about the contract were gathered:

Particulars	Amount (₹)
Materials purchased	1,00,000
Wages paid	45,000
General expenses	10,000
Plant purchased	50,000
Materials on hand 30.6.2022	25,000
Wages accrued 30.6.2022	5,000
Work certified	2,00,000
Cash received	1,50,000
Depreciation of Plant	5,000
Work uncertified	15,000

The above contract contained an escalator clause which read as follows:
"In the event of prices of materials and rates of wages increase by more than 5% the contract price would be increased accordingly by 25% of the rise in the cost of materials and wages beyond 5% in each case".

It was found that since the date of signing the agreement the prices of materials and wage rates increased by 25%. The value of the work certified does not take into account the effect of the above clause.

Prepare the Contract Account.

Question 4 (June 2018/December 2024)

A contractor, who prepares his accounts on 31st March each year, commenced a Contract No. 220 on 1st July, 2016. The following information is revealed from his costing records on 31st March, 2017:

Particulars	(Rs.)
Materials sent to site	2,51,000
Labour	5,65,600
Foreman's salary	81,300

A machine costing Rs.2,60,000 remained in use on site for 146 days. Its working life is estimated at 7 years and final scrap value at Rs. 15,000. A supervisor is paid Rs. 8,000 per month and has devoted one half of his time on the contract.

All other expenses amount to Rs. 1,36,500. Materials at site on 31st March, 2017 cost Rs. 35,400.

The contract price is Rs. 20,00,000. On 31st March, 2017 two-third of the contract was completed, however, the architect gave certificate only for 50% of the contract price and Rs. 7,50,000 had so far been paid on account.

Prepare Contract Account and state how much profit or loss should be included on 31stMarch, 2017 in financial accounts.

Question 5 (December 2018/June 2023 S22/June 2020 set 1)

OMEGA LTD. undertook a contract for Rs.5,00,000 on 1st January, 2017. The company furnishes the following details for the year ended 31st December, 2017:

	Rs.
Materials consumed	1,65,000
Direct Expenses	5,000
Wages	30,000
Materials returned to stores	5,000
Materials stolen from site	10,000
Insurance claim admitted	6,000
Works expenses @ 20% on wages	
Office expenses @ 10% on works cost	

Materials in hand on 31.12.2017	15,000
Cash received to the extent of 90% of works certified	2,70,000
Cost of work uncertified	11,000

Plant sent to site costing Rs.60,000 with a scrap value of Rs.10,000 and its useful life is 5 years. The plant was used on the contract for 146 days.

Required:

Prepare Contract Account showing therein the cost of materials issued to site and the amount of profit or loss to be transferred to the Profit & Loss Account.

Question 6 (December 2022)

Monteck Ltd., a construction company with a paid-up share capital of 50 lakhs undertook a contract to construct LIG house. The contract work commenced on 1st April, 2021 and the contract price was 50 lakhs. Cash received on account of the contract on 31.03.2022 was 18 lakh (90% of the work certified). Work completed but not certified was estimated at ₹ 1,00,000. As on 31.03.2022 material at the site was estimated at 30,000 and machinery at the site costing 2,00,000 was returned to stores. Plant and machinery at the site is to be depreciated at 5%. Wages outstanding on 31.03.2022 was 5,000.

Land and Buildings	15,00,000
Plant and Machinery at cost (60% at site)	25,00,000
Lorries and other vehicles	8,00,000
Furniture	50,000
Office equipment	10,000
Materials sent to the site	14,00,000
Fuel and Power	1,25,000
Site expenses	5,000
Postage and telegrams	4,000
Office expenses	8,000
Rates and taxes	15,000
Cash at Bank	1,33,000
Wages	2,50,000

Required:

(i) Prepare the Contract Account to ascertain the profit from the contract.

(ii) Calculate the value of WIP A/c to be shown in the Balance Sheet.

Question 7 (June 2017 Set 1/December 2023 old)

New Construction Ltd. is engaged in a contract during the year. Following information is available at the year end.

Particulars	Amount Contract (₹)
Contract price	6,00,000
Material delivered direct to site	1,20,000
Materials issued from stores	40,000
Materials returned to stores	4,000
Materials at site at the end of year	22,000
Direct labour payments	1,40,000
Direct expenses	60,000
Architect's fees	2,500
Establishment charges	24,500
Plant installed at cost	80,000
Value of plant at the end of year	65,000
Accrued wages at the end of year	10,000
Accrued expenses at the end of year	6,000
Cost of contract not certified by architect	23,000
Value of contract certified by architect	4,20,000
Cash received from contractee	3,78,000

During the period, materials amounting to ₹9,000 have been transferred to another contract to another place.

You are required to show the Contract A/c.

Question 1 (December 2019)

REACON LTD is engaged in process Engineering Industry. During a month 4000 units of input were introduced in Process B at a cost of Rs. 20,000. The normal loss was estimated at 10% of input. The process costs were direct materials Rs. 10,425, direct wages Rs. 20,400 and factory overhead 50% of direct wages. At the end of the month 3200 units were produced and transferred to Process C, 500 units were scrapped and realised @ Rs. 5 per unit. Scrapped units were 50% processed. 300 units were incomplete and the stage of completion was material 75%, wages and overhead 50%.

Required:

(i) Find out equivalent production, cost per completed unit, value of work- in-progress and

(ii) Prepare Process B account.

Question 2 (June 2023/December 2023 set 2)

A company produces a product 'M' by three distinct processes before it is ready for sale. From the information given below, work out the selling price of the product if the Management decides to earn a profit of 20% over its total cost. Present the process a/c for each process.

Particulars		Processes		
		A	B	C
1	Input of raw materials @ ₹ 40 per kg. (kg)	20,000	-	-
2	Normal loss of input	5%	5%	5%
3	Delivered to next process (kg)	18,000	16,000	-
4	Total direct labour cost (₹)	30,000	31,500	26,000
5	Variable overhead (%of direct labour)	150%	120%	100%
6	Fixed overhead (% of direct labour)	250%	180%	200%
7	Finished stock held back (kg)	800	800	-

Question 3 (June 2023 S22/June 2020 set 2)

M/s Golden Oil Refinery Ltd. (GORL) produces "Golden" brand oil which passes through three different processes before getting finished oil. The following details are extracted from the costing records of the company for the month of March, 2023:

	Crushing (Rs.)	Refining (Rs.)	Finishing (Rs.)
Cost of Labour	5,000	3,000	2,000
Sundry Material	2,000	1,500	1,000
Electric Power	1,500	1,000	800
Steam	1,000	1,000	750
Repair of Machine	1,000	5,00	250

Cost of Casks & Drums	—	—	3,750

M/s GORL purchased 1,000 tons of copra for ₹ 50,000. Factory overheads for the period were ₹ 5,000 to be apportioned on the basis of wages. 850 tons of crude oil was produced; 770 tons of oil was refined and finally 750 tons of oil was finished for delivery. Realised 1,000 from sale of sacks; 2,500 by sale of 125 tons of copra residue and 2,550 by sale of 60 tons of by-products in refining process.

Required:

Prepare Process Accounts for the month of March, 2023.

Question 4 (December 2024)

MONTECH Ltd. is engaged in process engineering industry. Its product ZP passed through two process A and B. During the month of September 2024, the input to process A of basic Raw Material was 8000 units @₹9 per unit.

Other information for the month is as follows:

	Process A	Process B
Output units	7500	4800
Normal loss (% to input)	5%	10%
Scrap value per unit (₹)	2	10
Direct wages (₹)	12000	24000
Direct expenses (₹)	6000	5000
Selling price per unit (₹)	15	25

Total overheads 17,400 were recovered as percentage of direct wages. Selling expenses were ₹5,000. They are not allocated to the processes. 2/3rd of the output of Process A was passed on to the next process and the balance was sold. The entire output of Process B was sold. It is assumed that Process A and Process B are not responsibility centre.

Required:

(i) Prepare Process A and Process B Accounts.

(ii) Calculate the profit of Process A and B for the month of September 2024.

Question 5 (June 17 set 1/June 19 set 2/Dec 2019 set 2/Dec 2023 old/Dec 2024 set 2)

A product passes through three processes— A, B and C. 10,000 units at a cost of ₹1.10 were issued to Process A. The other direct expenses were as follows:

	PROCESS-A	PROCESS-B	PROCESS-C
Sundry materials	1,500	1,500	1,500
Direct labour	4,500	8,000	6,500
Direct expenses	1,000	1,000	1,503

The wastage of process: A was 5% and in process B 4%

The wastage of process 'A' was sold at ₹0.25 per unit and that of 'B' at ₹0.50 per unit and that of C at ₹ 1.00.

The overhead charges were 160% of direct labour. The final product was sold at ₹10 per unit fetching a profit of 20% on sales. Find out the percentage of wastage in Process 'C'.

Question 6

XP Ltd. furnishes you the following information relating to process II.

(i) Opening work-in-progress – NIL

(ii) Units introduced 42,000 units @ ₹ 12

(iii) Expenses debited to the process:

Direct material	= 61,530
Labour	= 88,820
Overhead	= 1,76,400

(iv) Normal loss in the process = 2% of input.

(v) Closing work-in-progress – 1,200 units

Degree of completion - Materials	100%
Labour	50%
Overhead	40%

(vi) Finished output – 39,500 units

(vii) Degree of completion of abnormal loss:

Material	100%
Labour	80%
Overhead	60%

(viii) Units scraped as normal loss were sold at ₹ 4.50 per unit.

(i) All the units of abnormal loss were sold at ₹ 9 per unit.

Prepare:

(a) Statement of equivalent production;

(b) Statement showing the cost of finished goods, abnormal loss and closing work-in-progress;

(c) Process II account and abnormal loss account.

Question 7

ABX Company Ltd. provides the following information relating to Process-B:

(i) Opening Work-in-progress	- NIL
(ii) Units Introduced	- 45,000 units @ ₹ 10 per unit
(iii) Expenses debited to the process:	
Direct material	₹ 65,500
Labour	₹ 90,800
Overhead	₹ 1,80,700
(iv) Normal loss in the process	- 2% of Input
(v) Work-in progress	- 1800 units
Degree of completion	
Materials	- 100%
Labour	- 50%
Overhead	- 40%
(vi) Finished output	- 42,000 units
(vii) Degree of completion of abnormal loss:	
Materials	- 100%
Labour	- 80%
Overhead	- 60%
(viii) Units scrapped as normal loss were sold at	₹ 5 per unit.
(ix) All the units of abnormal loss were sold at	₹ 2 per unit.

You are required to prepare:

(a) Statement of equivalent production.

(b) Statement showing the cost of finished goods, abnormal loss and closing balance of work-in-progress.

(c) Process-B Account and Abnormal Loss account.

Question 1 (Module/December 2017)

XY Ltd manufacturers Product A which yields two By-Products B and C. The actual joint expenses of manufacturing for a period were ₹ 8,200. The profits on each product as a percentage of sales are 33-1/3 %, 25% and 15% respectively.

Subsequent expenses are as follows:

Particulars	Products		
	'A' Amount (₹)	'B' Amount (₹)	'C' Amount (₹)
Material	100	75	25
Direct Labour	200	125	50
Overheads	150	125	75
	450	325	150
Sales	6,000	4,000	2,500

Apportion the joint expenses.

Question 2 (Module/June 2024 set 1/December 2024 set 1)

In manufacturing the main Product 'A', a company processes the resulting waste material into two By-Products B and C. Using reversal cost method of By-Products, prepare a comparative profit and loss statement of the three products from the following data:

(i) Total cost up to separation point was ₹ 68,000

	A	B	C
(ii) Sales (all production)	₹ 1,64,000	₹ 16,000	₹ 24,000
(iii) Estimated net profit % to Sale Value	-	20%	30%
(iv) Estimated Selling Expenses as % of Sales Value	20%	20%	20%
(v) Costs after separation	-	₹ 4,800	₹ 7,200

Question 3 (Module/December 2019 set 1)

Beauty soap, company manufactures four different brands of soaps namely Komal, Lovely, Makeup and Nice. The data on production and sale of these brands during 2022 is reproduced below:

Brand Name	**Komal**	**Lovely**	**Makeup**	**Nice**
Production & Sales (units)	3,00,000	5,00,000	70,000	40,000
Sale Value in lakhs (₹)	15	31	2.8	1.2

All the above soaps are manufactured jointly up to a particular process. At split off point they are formed into cake-sand packed. The annual cost data were as under.

Direct Material Cost ₹ 30 lakhs

Value added ₹ 20 lakhs

(Includes profit at 25% on total cost)

Out of the above brands, Makeup is sold in unpacked condition without further processing while the other 3 brands further processed at an additional cost as follows:

Komal	₹ 1,20,000
Lovely	₹ 1,30,000
Nice	₹ 50,000

You are required to:

(a) Work out the profit and cost of each brand of soap after allocating joint cost on the basis of Net Realisable value at split up point. (per unit cost not required).

(b) Find out revised cost and profit on each brand if the company decides to sell all soaps at split up point at following prices; Komal ₹ 4.50; Lovely ₹ 6.00; Makeup ₹ 4.00 and Nice ₹ 1.50 per unit.

Assume that for allocation of joint cost Net Realisable Value Method is used.

(c) With the working results in (a) and (b) above, advice Beauty Soap Company about the processing decision as to which soap to be sold at split off point and which to be processed further so as to maximise profit. Substantiate your decision with suitable costing technique.

Question 4 (December 2023/June 2019)

WEST LAND LTD. in the course of refining crude oil obtains four joint products P, Q, R and S. The total cost till the split-off point was Rs. 9,76,640. The output and sales in the year 2018 were as follows:

Product	Output (Gallon)	Sales Amount (Rs.)	Separate Costs Amount (Rs.)
P	50,000	12,50,000	2,60,000
Q	10,000	30,000	20,000
R	5,000	50,000	—
S	8,000	80,000	10,000

Required:

(i) Calculate the net income for each of the products if the joint costs are apportioned on the basis of Net realisable values (NRV) of the different products.

(ii) Calculate the net income of each of the products if the company decides to sell the products at the split-off point itself as – P @ Rs. 18, Q @ Rs. 1.50, R @ Rs. 10 and S @ Rs. 7.80 per gallon.

(iii) Advice the management of XINT LTD. As to whether the four products are to be sold at the split off point or after further processing.

Question 5 (June 2024 S22)

XYZ Ltd. processes 1,50,000 kg. of raw materials in a month to produce two products, viz. P and Q.

The cost of raw material is 8 per kg.

The process costs per month are:

Direct Materials	₹ 3,50,000
Direct Wages	₹ 2,80,000
Variable Overheads	₹ 2,35,000
Fixed Overheads	₹ 1,45,000

The loss in process is 5% of input and the output ratio of P and Q which emerge simultaneously is 1:2. The selling prices of the two products at the point of split off are: P – ₹ 12 per kg. and Q – ₹ 20 per kg.

A proposal is available to further process the product P by mixing it with other purchased materials. The entire current output of P can be processed further to obtain a new product 'S'. The price per kg. of 'S' is ₹ 15 and each kg. of output of 'S' will require 1 kg. of input P. The cost of processing of P into 'S' (including other materials) is ₹ 1,85,000 per month.

Required:

Prepare a statement showing monthly profitability based both on the existing manufacturing operations and on further processing. Will you recommend further processing?

Note: Apportionment of joint costs are made on sales value basis by the company.

Question 1 (Module)

Epitome Pen Inc. and has the following budgeted overheads for the year, based on normal activity levels.

Production Departments	Budgeted Overheads (₹)	Budgeted activity
Welding	12,000	3,000 labour hours
Assembly	20,000	2,000 labour hours

Selling and administrative overheads are 25% of factory cost. An order for 500 Brazils made as Batch 38, incurred the following costs.

Materials ₹ 24,000

Labour 200 hours in the Welding Department at ₹5 per hour

400 hours in the Assembly Department at ₹10 per hour

₹1,000 was paid for the hire of x-ray equipment for testing the accuracy of the welds. Calculate the cost per unit for Batch 38.

Question 2 (Module/December 2017 set 2)

From the following information, calculate Economic Batch Quantity for a company using batch costing:

Annual Demand for the components	2,400 units
Setting up cost per batch	₹ 100
Manufacturing cost per unit	₹ 200
Carrying cost per unit	6% p.a.

Question 3 (Module/June 2018 set 2)

A customer has been ordering 90,000 special design metal columns at the rate of 18,000 per order during the past years. The production cost comprises ₹ 120 for material, ₹ 60 for labour and ₹ 20 for fixed overheads. It costs ₹ 1,500 to set up for one run of 18,000 column and inventory carrying cost is 15% since this customer may buy at least 5,000 columns this year, the company would like to avoid making five different production runs. Find the most economic production run.

Question 4 (Module/June 2017 set 2/December 2018 set 1)

AB Ltd is committed to supply 24,000 bearings per annum to CD Ltd on a steady basis. It is estimated that it costs 10 paise as inventory holding cost per bearing per month and that the set-up cost per run of bearing manufacture is ₹ 324.

(a) What would be the optimum run size for bearing manufacture?

(b) What is the minimum inventory holding cost at optimum run size?

(c) Assuming that the company has a policy of manufacturing 6,000 bearing per run, how much extra costs would the company be incurring as compared to the optimum run suggested in (a)?

Question 5 (June 2023 S22/December 2019 set 1)

M/s PQR Ltd. undertakes supply of a component "25" in batches. Every month a fresh batch order is opened against which materials and labour costs are booked at actuals. Overheads are levied at a rate per labour hour. The selling price is contracted at 15 per unit and labour is paid @2 per hour

The company furnishes data for the three months of January, February and March, 2023 as under:

Month	Batch Output (Nos.)	Material Cost (₹)	Labour Cost (₹)	Overheads (₹)	Total Labour Hrs.
January	1250	6250	2500	12000	4000
February	1500	9000	3000	9000	4500
March	1000	5000	2000	15000	5000

Required:

Calculate the cost and profit per unit of each batch order.

Question 1 (June 2023/December 2023 S22)

Journalize the following transactions assuming that cost and financial accounts are integrated (Narration is not required.):

Raw material purchased	8,00,000
Direct materials issued to production	6,00,000
Wages paid (30% indirect)	4,80,000
Wages charged to production	3,36,000
Manufacturing expenses incurred	3,80,000
Manufacturing overhead charged to production	3,60,000
Selling and distribution cost	80,000
Finished products (at cost)	8,00,000
Sales	11,60,000
Receipts from debtors	2,76,000