

(3)
QAB1
PART – I

$$A = 4500 \times 12 \\ = 54000 \\ \underline{A, 12, 000000} \\ 300$$

Case Scenario – I :

Skylark Electronics Company assembles and sells laptops in India. An important component of laptop is its rechargeable battery. The company buys its monthly requirement of 4,500 batteries and it would buy its annual requirement in 10 equal instalments. The purchase cost of one battery is ₹ 800.

The batteries are used evenly throughout the year in the assembling process on 360 days per year. The ordering cost is ₹ 9000 per order and the inventory carrying cost is 37.50% per annum. The high carrying cost results from the need to keep the batteries in carefully controlled temperature under humid conditions along with high cost of insurance.

Delivery of the batteries from the vendor generally takes 6 days but it may go up to as much as 10 days. The days of delivery time and percentage of their occurrence are shown in the table below :

Delivery Time (Days)	6	7	8	9	10
Percentage of Occurrence (%)	70	15	5	5	5

On the basis of above case scenario, you are required to answer the following MCQs 1 to 5 :

1. At what quantity of purchase of batteries, the ordering costs will be equal to the inventory carrying costs ?

- (A) 1600
(B) 1700
~~(C) 1800~~
(D) 1900

2

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2. What will be the total annual cost of purchases as per the quantity calculated in Q-1 above ? 2
- (A) ₹ 3,84,80,000
- (B) ₹ 4,37,40,000
- (C) ₹ 4,29,30,000
- (D) ₹ 5,80,84,000
3. Assuming that the company is willing to take a 15% risk of being out of stock, what would be the safety stock and the Re-order point ? 2
- (A) Safety stock 1050 batteries and Re-order point 2250 batteries
- (B) Safety stock 2250 batteries and Re-order point 1050 batteries
- (C) Safety stock 1450 batteries and Re-order point 2850 batteries
- (D) Safety stock 1250 batteries and Re-order point 2650 batteries
4. Assuming that the company is willing to take a 5% risk of being out of stock what would be the safety stock and Re-order point ? 2
- (A) Safety stock 1100 batteries and Re-order point 2800 batteries
- (B) Safety stock 1350 batteries and Re-order point 2550 batteries
- (C) Safety stock 1280 batteries and Re-order point 2900 batteries
- (D) Safety stock 1550 batteries and Re-order point 3280 batteries

QAB1

5. Assuming 5% risk of out of stock what would be the total cost of ordering and carrying inventory for one year ?

2

(A) ₹ 5,40,000

(B) ₹ 8,15,000

(C) ₹ 9,45,000

(D) ₹ 10,80,000

Case Scenario – II :

Allure Metallurgy Ltd., is a stainless-steel manufacturing company which manufactures two grades of stainless steel products namely SS304 & SS316 made of a common raw material iron procured at ₹ 52 per kg from the market. The usage of the raw material is expected to be at a constant rate over the entire period. The raw material supplier to the company charges ₹ 24,000 per order but its delivery is limited to 1200 tons per annum. There is no alternate source to procure the raw material. In consideration of the above limitations, the company decided to review its inventory management policies for the forthcoming year.



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The following forecasted information has been extracted from departmental estimates for the budget year ending on 31st March 2025 :

	SS304	SS316
Sales (units)	56,000	86,000
Finished Goods stock increase by year end (units)	1,614	1,215
Post Production rejection rate (%)	3	7
Iron usage in kg (per completed unit, net of wastage)	5.5	8
Iron wastage (%)	8	11

You are required to calculate the following (MCQ's 6 to 10) :

6. The minimum number of units of SS304 & SS316, the company shall produce to justify the sales forecast would be :

2

(A) 56,000 & 86,000

(B) 57,614 & 87,215

(C) 59,396 & 93,780

(D) 64,561 & 1,05,371

QAB1



7. The ratio in which the raw material utilized for SS304 & SS316 from the total quantity of raw material procured, to produce the number of units desired in Q-6 above ?

2

(A) 29.59% & 70.24%

☒ (B) 29.64% & 70.36%

(C) 30.33% & 69.67%

(D) 38.77% & 61.23%

8. Assuming that all the available 1200 tons of raw material is procured per annum and would be utilized for production, what would be the raw material needed for production of SS 304 in order to maintain the same production mix arrived in Q-7 above ?

2

(A) 3,26,678 kg

(B) 3,27,209 kg

☒ (C) 3,55,085 kg

☒ (D) 3,55,663 kg

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QAB1

9. Assuming that all the available 1200 tons of raw material is procured per annum and would be utilized for production, what would be the raw material needed for production of SS 316 in order to maintain the same production mix arrived in Q-7 above ? 2
- (A) 7,50,240 kg
- (B) 7,51,460 kg
- (C) 8,42,966 kg
- (D) 8,44,337 kg
-
10. Keeping the management purchase policy & production quantity mix in consideration for SS304 & SS316, the maximum number of units of each product that company would produce (in units) respectively by utilizing 1200 tons of raw material : 2
- (A) 59,396 & 93,780
- (B) 59,493 & 93,933
- (C) 64,561 & 1,05,371
- (D) 64,666 & 1,05,542

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QAB1

11. Healthy & Fit Ltd., manufactures & sells a single product captioned as 'Exercise bikes'. The estimated units to be sold in the last quarter of the year 2024-25 are as under :

Particulars	January 2025	February 2025	March 2025
Exercise bikes (in units)	1,500	1,800	1,000

The company's policy is to hold closing stock of finished goods at 20% of the expected sales volume of the succeeding month.

Each unit of exercise bike requires one unit of main body with resistance system & two units of pedals. Calculate the number of pedals required to be purchased for January 2025 production.

- (A) 1,560 pedals
(B) 1,440 pedals
(C) 3,120 pedals
(D) 2,880 pedals

12. A company which operates a batch costing system is fully integrated with the financial accounts.

During a particular period materials worth ₹ 30,000 and ₹ 20,000 were issued to production and Factory Maintenance respectively. The following control A/cs are being maintained.

- (i) Store ledger control A/c.
(ii) Work-in-progress control A/c.
(iii) Production overhead control A/c.
(iv) Finished goods control A/c.

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QAB1

From the above information, identify which account/accounts will be debited to effectuate the issuance of materials :

- (A) (i) & (ii)
- ☒ (B) (ii) & (iii)
- (C) (ii) & (iv)
- (D) Only (i)

13. A Lorry starts with a load of 15 tons of goods from Station 'X'. It unloads 5 tons in Station 'Y' and balance goods in Station 'Z'. On return trip, it reaches Station 'X' with a load of 8 tons, loaded at Station 'Z'. The distance between X to Y, Y to Z and Z to X are 50 kms, 60 kms and 80 kms, respectively.

Compute "Absolute Tons-Kilometre" and "Commercial Tons-Kilometre".

- (A) 1,690 & 2,000
- (B) 1,990 & 2,090
- ☒ (C) 2,090 & 1,990
- (D) 2,100 & 1,980

14. A company forecasts its labour costs and material cost to go up by 12% and 8% respectively per unit in the next financial year. If the ratio between material and labour is 5 : 3, determine the increase in selling price as a percentage that the company shall keep to maintain its P/V of 12%, assuming variable overheads as nil.

- (A) 7.45%
- (B) 8.01%
- ☒ (C) 9.95%
- (D) 9.46%

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15. A spice is passed through two processes and the output of Process I – Grinding, transferred to Process II – Packaging. The input units in Process I are 7,500 kgs and the output units are 7,275 kgs, abnormal gain is 150 kgs.

You are required to calculate the normal loss percentage and value of abnormal gain, if the total expenses incurred in Process I are ₹ 1,50,750 and scrap has realisable value of ₹ 3 per unit.

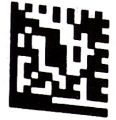
- (A) 4% and ₹ 3,174 SH
- (B) 5% and ₹ 3,200
- (C) 5% and ₹ 3,150
- (D) 5.10% and ₹ 3,015
-

1,50,750

Roll No.

Total No. of Questions – 6

Total No. of Printed Pages – 12



Maximum Marks – 70

GENERAL INSTRUCTIONS TO CANDIDATES

1. The question paper comprises two parts, Part I and Part II.
2. Part I comprises Multiple Choice Questions (MCQs).
3. Part II comprises questions which require descriptive answers.
4. Ensure that you receive the question paper relating to both the parts. If you have not received both, bring it to the notice of the invigilator.
5. Answers to MCQs in Part I are to be marked on the OMR answer sheet as given on the cover page of descriptive answer book only. Answers to questions in Part II are to be written in the same descriptive answer book. Answers to MCQs, if written inside the descriptive answer book will not be evaluated.
6. OMR answer sheet given on the cover page of descriptive answer book will be in English only for all candidates, including for Hindi medium candidates.
7. **The bar coded sticker provided in the attendance register, is to be affixed only on the descriptive answer book.**
8. You will be allowed to leave the examination hall only after the conclusion of the exam. If you have completed the paper before time, remain in your seat till the conclusion of the exam.
9. Duration of the examination is 3 hours. You will be required to submit the descriptive answer books with OMR cover page to the invigilator before leaving the exam hall, after the conclusion of the exam.
10. The invigilator will give you acknowledgement on Page 2 of the admit card, upon receipt of the descriptive answer book.
11. Candidate found copying or receiving or giving any help or defying instructions of the invigilators or having / using mobile phone or smart watch will be expelled from the examination and will also be liable for further punitive action.

PART – II

70 Marks

1. Question paper comprises 6 questions. Answer Question No. 1 which is compulsory and any 4 out of the remaining 5 questions.
2. Working notes should form part of the answer.
3. Answers to the questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be evaluated.

QAB2

P.T.O.

PART - II

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1. (a) Axion Industries is a heavy industrial gear manufacturing company with a manufacturing setup based in Pune. Mr. Andrew, the CFO of the company furnishes the following information to Mr. Joe who heads the Finance department.

For FY 2024-25 :

Particulars	Amount ₹ (in crores)
Total Sales	1,00,000
Raw material cost	50,000
Direct wages	15,000
Fixed & variable overheads	25,000
Profit	10,000
Total Number of Units sold	40,000 units

The market being very competitive and with the raw materials rates rising, Mr. Andrew raises his concern with Mr. Joe where he expects in the next financial year 2025-26 workers' wages to rise by 20%, fixed costs component to decrease by ₹ 500 crores. Total fixed & variable overhead however is to be ₹ 28,500 crores. The total number of units expected to be sold would be 50,000.

Required :

Calculate the minimum number of units to be sold to sustain the same per unit profit in the financial year 2025-26 also.

(Ignore further effects on Fixed costs).

QAB2

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QAB2

- (b) Aroma Park Ltd. produces two perfumes named Floral, Oriental, and one Cologne, all created through a joint production process. Below are the data from the most recent month of production :

	Products		
	Floral	Oriental	Cologne
Sales Price	₹ 80	₹ 200	₹ 300
Quantity (in units)	5,000	3,000	2,000
Joint Cost	₹ 60	₹ 60	₹ 60
Cost after split off	₹ 40	₹ 80	₹ 100
Total cost	₹ 100	₹ 140	₹ 160

The management on reviewing the above cost data is of the opinion that either they are selling the largest – volume product at a loss or the product cost data is flawed.

Required :

- Prepare statement showing profit / loss for each product based on the given data. 2
- Respond to the management perception by showing joint cost apportionment under Net Realisable Value method. 3

- (c) Following information is given of a newly setup organization for the year ended on 31st March, 2025 :

Number of workers replaced during the period	78
Number of workers left and discharged during the period	28
Employee turnover rates using separation method	3.5%

Required :

Compute the employee turnover rates using

- Replacement method and 2
- Flux method 2

QAB2

P.T.O.

- (a) Kidz Company manufactures and sells two models of baby toys namely, Max and Pro. During the Financial Year 2024-25, 1500 units of Max and 3600 units of Pro were manufactured. However, only 60% of Max and 80% of Pro were sold during the year. Labour cost per unit of Max is two times that of Pro. There was no opening stock of finished goods or work-in-progress.

The cost particulars of the two models of Baby Toys are given below :

Particulars	Max (₹)	Pro (₹)	Total (₹)
Material Cost	42,000	63,000	1,05,000
Labour Cost	—	—	1,21,000

$$\begin{aligned}
 &2x \times 1500 + x \times 3600 \\
 &3000x + 3600x \\
 &6600x = 1,21,000 \\
 &x = 18.33 \\
 &2x = 36.66
 \end{aligned}$$

Further, the cost controller of the factory informed that :

- Works overhead is 50% of labour cost
- Office overhead is recovered at 20% of works cost.
- Selling and distribution overhead is ₹ 20 and ₹ 30 per unit sold for Model Pro and Model Max respectively.

$$\begin{aligned}
 &1,67,400 + 0.2x = x \\
 &1,67,400 = 0.8x
 \end{aligned}$$

$$x = 1,67,400 \div 0.8 = 2,09,250$$

Required :

- Prepare a cost sheet for the financial year 2024-25, showing the various elements of cost for each model of Baby Toys (Prime cost, work cost, cost of production, cost of goods sold and cost of sales).
 - Calculate the per unit selling price of each model of Baby Toys if profit is charged at 20 percent on sales.
- (b) A plastic manufacturing company is operating with an employment of 128 skilled workers. The product is in great demand. The company desires to increase production to meet market demand but is short of skilled workers. The company finds extremely difficult to find new skilled workers to fulfil its demands. The company is considering the introduction of an incentive scheme – either Halsey scheme (with 50% bonus) or Rowan scheme of wage payment for increasing the labour productivity to cope up the increasing demand.

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The company believes that if the proposed incentive scheme could bring about an average 15% increase over the present earnings of the workers, it could act as sufficient incentive for them to produce more with increased efficiency.

The following data is worth consideration, in measuring the increase in productivity for the month of April 2025.

Hourly rate of wages (guaranteed)	₹ 30
Maximum time allowed to produce one unit by one worker	2.5 hours
Number of working days in the month	25
Number of working hours per day of each worker	8
Actual production during the month (units)	12,500

Required :

- (i) Calculate the effective rate of earnings under the Halsey scheme and the Rowan scheme.
- (ii) Calculate the increased labour efficiency on introduction of the incentive schemes.
- (iii) Calculate the savings to the plastic company in terms of direct labour cost per unit under both the schemes.
- (iv) Advise the company about the selection of the scheme to fulfil their assurance.

(a) Meri Chai Teri Chai Ltd., is engaged in manufacturing three products :

- Ginger Chai
- Masala Chai
- Saffron Chai

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It calculates activity cost rates based on cost driver capacity.

Activity	Cost driver	Capacity	Cost (₹)
Machine Setup	Number of setups	64	7,68,000
Machine Processing	Machine hours	1,40,000	7,00,000
Quality inspection	Number of inspections	544	6,80,000
Packaging	Number of packings	600	7,20,000

For the year ended 31st March 2025, the following consumption of cost drivers was reported :

Product	Number of setups	Machine hours	Number of inspections	Number of packings
Ginger Chai	21	45,000	190	190
Masala Chai	22	50,000	204	250
Saffron Chai	17	40,000	150	150

Required :

- Compute the costs allocated to each product from each activity on the basis of Activity-Based Costing method.
- Calculate the cost of unused capacity for each activity.

- (b) Max Cinemas has three types of seats – Classic, Prime & Recliner where the total capacity is 306 seats, which are divided in the ratio of 12 : 4 : 1 respectively. The ticket price of Prime is twice of Classic ticket price and that of Recliner is thrice of Prime ticket price. Following information is given :

Types of seats	Occupancy percentage
Classic	75%
Prime	50% 2
Recliner	50% 2 1/3

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On a daily basis, 4 movie shows are run throughout the year. The total cost per day is estimated to be ₹ 77,760. Assume 25% profit on total revenue.

Required :

- (i) Calculate Equivalent Classic seats per day.
- (ii) Calculate Ticket prices of all three types of seats.

4. (a) NT Ltd., showed a net loss of ₹ 9,000 as per their cost accounts for the year ended 31-03-2025. However, the financial books disclosed a net profit of ₹ 7,000 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books :

	(₹)
Factory overheads absorbed	52,000 (+) (7000)
Selling & distribution overheads over absorbed	6,000 (+)
Administrative overheads under absorbed	7,500 (-)
Interest on Loan	8,800 (-)
Dividend received	9,000 (+)
Factory overheads charged	45,000
Depreciation charged in financial accounts	42,000
Depreciation recovered in cost accounts	45,000 + 3000

There is the difference in the value of closing stock of finished goods due to varying basis of valuation. 500 units of closing stock is valued at ₹ 41,000 in cost accounts whereas market price per unit of closing stock is ₹ 80 per unit.

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It is found that there is still a difference in the reconciliation statement after considering all of the above which is due to the excess of raw material consumption in cost accounts.

Prepare :

- (i) A reconciliation statement taking net loss as per cost accounts as base, and
 - (ii) Find out the excess of material consumption during the period in cost accounts effectuated the difference in reconciliation.
- (b) A manufacturing unit using Standard costing system and the following information was obtained from its records :

	Standard	Actual
Production	4,800 units	4,560 units
Working days	25	27
Fixed overhead	₹ 48,000	₹ 46,800
Variable overhead	₹ 14,400	₹ 14,400

Required :

Calculate the following overhead variances :

- (i) Variable overhead variance $(SH \times SR) - (AH \times AR)$
- (ii) Fixed overhead variance $(BH \times SR) - (AH \times AR)$
- (iii) Fixed overhead Expenditure variance $(BH \times BR) - (AH \times AR)$
- (iv) Fixed overhead Volume variance $(SH \times SR) - (BH \times SR)$
- (v) Fixed overhead Calendar variance $(CH \times BR) - (BH \times SR)$

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5. (a) Furniture Wala Ltd., a manufacturer of dining tables, procures wood as its direct material. The dining tables are initially processed in the Moulding department and subsequently transferred to the Laminating department, where a plastic layer is applied. 4

The Moulding department began manufacturing 35,000 initial dining tables during the month of March 2025 for the first time and their cost is as follows :

Direct material : ₹ 1,15,500

Moulding costs : ₹ 59,500

Total ₹ 1,75,000

A total of 28,000 dining tables were completed and transferred to the Laminating department, the rest 7,000 were still in the Moulding process at the end of the month. All of the Moulding department's direct materials were placed but on average, only 25% of the conversion costs were applied to the ending work in progress inventory.

Required to calculate :

- (i) Equivalent units of production for each cost.
 - (ii) The Moulding cost per Equivalent units.
 - (iii) Cost of closing work-in-process (WIP) and finished products.
- (b) Distinguish between "job costing and batch costing". 1200/15020³
- (c) A reputed engineering college in Pune has 20 sections with 60 students per section. The college plans a one day pleasure trip around the city for the students during the weekend to places such as zoo, the amusement park and the technological museum. A private transport operator has agreed to provide the required number of buses at a hire charge of ₹ 6,500 per bus per trip. The bus hire charge is inclusive of special permit fees of ₹ 500 per bus per trip paid to the city municipal corporation. 7

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P.T.O.

QAB2

Each bus has a maximum seating capacity of 54 persons excluding the driver. Four seats are reserved for the teachers who accompany each bus. The college will employ four teachers for each bus and pay ₹ 500 as daily allowance to each teacher for the trip. No other costs in respect of teachers are relevant to the trip. The following are the other cost estimates :

Particulars	Cost per student (₹)
Breakfast	55
Lunch	120
Evening tea with snacks	40
Entrance Fee at amusement park	Free entry
Entrance Fee at the zoo	25

As regards the technological museum, the authorities charge block entrance fees for group of students depending upon the number of students in the group as enumerated below :

Number of students in the group	Block Entrance Fees (₹)
Upto 300	2,000
301-900	3,000
901 and above	3,500

Cost of prizes that would be distributed to the winners in different games being arranged in the amusement park depends upon the number of students in a trip. The cost of prizes to be distributed is :

Number of students in a trip	Cost of prizes (₹)
Upto 300	2200
301-600	2400
601-900	2400
901 and above	2500

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Assuming that the college hires the requisite number of buses depending upon the number of students in a trip, you are **required** to :

- (i) Prepare a flexible budget, estimating the total cost for a trip for the levels of 300, 600, 900 and 1200 students showing each item of cost separately.
- (ii) Compute the average cost per student at each of the above levels.

(a) In the following independent situations, identify the type of cost and state **5** whether it is relevant/non-relevant in managerial decision making :

- (i) A Limited owns a commercial space of 1500 square feet and uses the same for its own office accommodation purposes. Similar office is available nearby on rent of ₹ 30,000 per month.
- (ii) MNC Limited has paid ₹ 1 Lakh as rent for a factory shed which is temporarily closed for the last two months.
- (iii) Beta Company has paid ₹ 3 Lakhs to a market research agency to find out the market demand of the innovative product developed by the company.
- (iv) Zen LLP has paid incentive of ₹ 5 Lakhs @ 1% on sales to the salesmen for achieving sales beyond the expected sales of ₹ 25 Lakhs per month per salesman.
- (v) A start-up company has invested ₹ 50 Lakhs in Project P. The company could have earned interest of ₹ 3 Lakhs by investing the amount in a bank fixed deposit @ 6% per annum.

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- (b) Cosmos Limited uses activity based costing and accumulates overhead costs in the following cost pools : 5

- (1) Human Resources
- (2) Maintenance of buildings
- (3) Parts Management
- (4) Plant security
- (5) Purchasing
- (6) Floor manager's salary
- (7) Quality control
- (8) Machine set-up
- (9) Designing the product
- (10) Receiving Department

Classify each cost pool as per cost hierarchy i.e. unit level, batch level, product level or facility level.

- (c) Describe briefly the methods for valuation of work-in-process followed in Process Costing. 4

OR

- (c) Contemplate the list of functions given below and identify each one of them with the most relevant scope of Cost Accounting : 4
- (i) It involves a detailed examination of each cost.
 - (ii) Helps in planning and control, performance appraisal and managerial decision making.
 - (iii) Cost involved in alternative courses of action.
 - (iv) To find out factors responsible for variance in actual costs from the budgeted costs.

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