PART – I

Case Scenario – I :

Skylark Electronics Company assembles and sells laptops in India. An important component of laptop is it's 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 ? **2**

   (A) 1600

   (B) 1700

   (C) 1800

   (D) 1900

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

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.

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

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

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

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 : 2

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. 2

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.

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". 2

(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%

15. A spice is passed through two processes and the output of Process I – Grinding is 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

(B) 5% and ₹ 3,200

(C) 5% and ₹ 3,150

(D) 5.10% and ₹ 3,015