

The actual records available are as under:

| | |
|---|------------|
| ● Beginning merchandise | Rs.100,000 |
| ● Reduction to date | Rs.30,000 |
| ● Sales to date | Rs.500,000 |
| ● Merchandise on the order for delivery | Rs.100,000 |
| ● Stock available | Rs.280,000 |

| | |
|---------------------------|-----|
| Initial mark-up on retail | 30% |
|---------------------------|-----|

Required: Open to buy at cost, showing merchandise received to date. [6+2=8]

Ans: Open-to-buy at cost: Rs.14,000; Merchandise received to date: Rs. 610,000

3. 2070 Old Q.No. 4

The total stock needed of a retail stores on 30th Baisakh is Rs.500,000. The planned sales for the month of Baisakh is Rs.700,000 and planned reduction is Rs.300,000. The actual sales and reduction to date were of Rs.300,000 and Rs.15,000 respectively. The stores informed that stock received to date was of Rs.310,000. The purchasing department reported that the stock on order for delivery was of Rs.85,000. On 1st Baisakh the beginning inventory was Rs.90,000. Initial mark up on retail 60%.

Required:

- ① Planned EOM for the month of Baisakh
- ② Available stock on 30th Baisakh
- ③ Open to buy at cost

[2+2+2=6]

Ans: ① Rs. 500,000; ②: Rs.170,000; ③: Rs.68,000

4. 2069 Q. No. 3

Following information has been supplied for retail shop company:

| | |
|---|-------------|
| Planned sales for the quarter | Rs. 750,000 |
| Estimated reduction for the quarter | 75,000 |
| Beginning inventory for the period | 150,000 |
| Ending inventory at the end of quarter | 175,000 |
| Reduction during the quarter | 50,000 |
| Sales during the period | 650,000 |
| Stock on order for delivery | 125,000 |
| Actual value of goods received during the quarter | 450,000 |
| Initial mark-up on retail | 40% |

Required: ① Stock needed ② Total stock available ③ Open-to-buy at cost [3+3+2=8]

Ans: (1) Rs. 300,000 (2) Rs. 25,000 (3) Rs. 165,000

5. 2068 Q.No. 3

Merchandise available at the end of the month is Rs. 45,000; which does not include the merchandise on delivery amounting to Rs. 25,000. The beginning merchandise at the beginning of the month was Rs. 50,000 and goods received to the date was Rs. 100,000. The actual reduction to the date was Rs. 5,000. The planning for the merchandise for the month is as under:

| | |
|-------------------------------|---------------|
| Ending balance of merchandise | Rs. 47,500 |
| Reduction for the month | Rs. 7,500 |
| Sales for the month | Rs. 2,00,000 |
| Initial mark up | 40% on retail |

Required: Open to buy at cost showing actual sales to date.

[8]

Ans: Rs. 48,000

6. 2068 Old Q.No. 4

The planned sales of a Departmental Store for the month August is Rs. 500,000. The planned data for the month are given below:

| | |
|-----------------------------------|-------------|
| Planned Stock at beginning | Rs. 220,000 |
| Planned Stock at end | Rs. 250,000 |
| Planned reduction for the month | Rs. 60,000 |
| Planned initial mark up on retail | 50% |

The actual data up to August 25 is as under:

| | |
|------------------------|-------------|
| Actual sales | Rs. 300,000 |
| Actual reduction | Rs. 40,000 |
| Goods received to date | Rs. 390,000 |
| Available stock | Rs. 410,000 |

Required: ① Needed stock ② Stock on order for delivery ③ Open to buy at cost [2+2+2=6]
 Ans: ① Rs. 20,000 ② Rs. 140,000 ③ Nil

7. 2067 Q.No. 3

A retail shop's records of a sale of commodity are as follows:

| | |
|-----------------------------------|-------------|
| Sales planned for the month | Rs. 800,000 |
| Actual sales to date | 450,000 |
| Planned reduction for the month | 50,000 |
| Actual reduction to date | 30,000 |
| Beginning merchandise | 80,000 |
| Ending merchandise of the month | 100,000 |
| Merchandise on order for delivery | 140,000 |
| Actual stock available | 250,000 |
| Initial mark-up on retail | 60% |

Required: Open-to-buy at cost showing merchandise received to date [8]
 Ans: Merchandise received to date = Rs. 510,000 and Open-to-buy cost = Rs. 32,000

8. 2067 (Old) Q.No. 3

The data regarding the sale of a commodity by a retail shop are as under:

| | |
|-----------------------------------|-------------|
| Sales plan for the month | Rs. 100,000 |
| Planned reduction for the month | Rs. 10,000 |
| Ending inventory for the month | Rs. 20,000 |
| Beginning inventory for the month | Rs. 15,000 |
| Initial mark-up on retail | 60% |

The actual records available are:

| | |
|-----------------------------|------------|
| Actual sale to date | Rs. 40,000 |
| Actual reduction to date | Rs. 4,000 |
| Goods received to date | Rs. 40,000 |
| Stock on order for delivery | Rs. 35,000 |

Required: Open-to-buy at cost showing total stock needed and total available stock [6]
 Ans: Total stock needed = Rs. 86,000 and total available stock = Rs. 46,000; Open-to-buy cost = 16,000

9. 2066 Q.No. 4

The planned sales and inventory of a company for a period are as follows:

| | |
|-----------------------------------|-------------|
| Beginning inventory of the period | Rs. 80,000 |
| Ending inventory of the period | Rs. 120,000 |
| Sales | Rs. 250,000 |
| Reduction | Rs. 25,000 |
| Initial mark-up on retail | 30% |

The value of the goods received during the period was Rs. 225,000 and stock on order for delivery of the same period was Rs. 40,000. The actual sales and actual reduction during the period were Rs. 200,000 and Rs. 10,000 respectively.

Required:

- Stock needed
- Total stock available
- Open-to-buy at cost

[3+2+1]
 Ans: (a) Rs. 185,000; Rs. 135,000; Rs. 35,000

10. 2065 Q.No. 5

The planned sale of a retail shop for the month April is Rs. 300,000. The planned data for the month is given below:

| | |
|-----------------------------------|-------------|
| Planned beginning stock | Rs. 150,000 |
| Planned ending stock | Rs. 200,000 |
| Planned reduction for the month | Rs. 30,000 |
| Planned initial mark-up on retail | 40% |

The actual data up to 20th April is as under:

| | |
|------------------------|-------------|
| Actual sales | Rs. 150,000 |
| Actual reduction | Rs. 14,000 |
| Goods received to date | Rs. 200,000 |
| Available stock | Rs. 236,000 |

Required: (a) Needed stock (b) Stock on order for delivery (c) Open-to-buy at cost [2+3+1=6]

Ans: (a) Rs. 366,000 (b) Rs. 50,000 (c) Rs. 78,000

11. 2064 Q.No. 4

The inventory planning of a retail shop for the current month is as under:

| | |
|--------------------------------------|-------------|
| Sales planning | Rs. 250,000 |
| Planned reduction | Rs. 10,000 |
| Ending inventory at the end of month | Rs. 100,000 |

The actual record to date is:

| | |
|-----------------------------|-------------|
| Reduction | Rs. 6,000 |
| Sales | Rs. 140,000 |
| Inventory received | Rs. 110,000 |
| Beginning inventory | Rs. 100,000 |
| Stock on order for delivery | Rs. 50,000 |
| Open to-buy at cost | Rs. 66,000 |

Required: Open-to-buy at selling price showing initial mark-up on retail.

[6]

Ans: 34%

12. 2063 Q.No. 5

The available stock of a retail department on 18th Baishakh is Rs. 127,000, which includes Rs. 30,000 stock on order for delivery. The actual sales and reduction to date are Rs. 70,000 and Rs. 8,000 respectively. The planned data of inventory for the month Baisakh are:

| | |
|------------------------------|-------------|
| Ending of month inventory | Rs. 100,000 |
| Beginning of month inventory | Rs. 75,000 |
| Sales | Rs. 150,000 |
| Reduction | Rs. 15,000 |
| Initial mark-up on retail | 40% |

Required: (a) Needed stock (b) Goods received to date (c) Open-to-buy at cost [2+2+2]

Ans: (a) Rs. 187,000 (b) Rs. 100,000 (c) Rs. 36,000

13. 2062 Q.No. 2

The planned sale of a retail shop for the month April is Rs. 400,000 Planned beginning and ending of inventory for the month is Rs. 150,000 and Rs. 140,000 respectively. The planned reduction for the month is Rs. 20,000. The planned initial mark-up on retail is 40%. The actual data upto 18th April are given below:

| | |
|---------------------------------|-------------|
| Actual sales | Rs. 250,000 |
| Actual reductions | Rs. 12,000 |
| Inventory received | Rs. 300,000 |
| Inventory on order for delivery | Rs. 50,000 |

Required: Open-to-buy amount at cost showing needed and available stock.

[3+2+1]

Ans: (1) Rs. 298,000 (2) Rs. 238,000 (3) Rs. 36,000

14. 2061 Q.No. 5

The beginning inventory of a retail shop on 1st Kartik was Rs. 30,000, and planned ending stock on 30th Kartik is Rs. 40,000. The planned reduction for the month is Rs. 10,000. The actual sale and reduction up-to-date on the 23rd Kartik was Rs. 160,000 and Rs. 4,000 respectively. The total stock needed on the same date is Rs. 86,000. The goods received on date is Rs. 170,000. The stock on order for delivery on 23rd Kartik is Rs. 60,000. The initial mark-up on retail is 40%.

Required:

1. Planned sale for the month Kartik
2. Open-to-buy at cost on date 23rd Kartik.

[3+2+1]

Ans: (1) Rs. 200,000 (2) Nil

15. 2060 Q.No. 6

The data regarding the sale of a commodity by a retail shop are as under:

| | |
|----------------------------------|-------------|
| Sales plan for the month | Rs. 300,000 |
| Planned reduction for the month | Rs. 15,000 |
| Ending merchandise for the month | Rs. 60,000 |

The actual records available are as under:

| | |
|-----------------------------------|-------------|
| Beginning merchandise | Rs. 50,000 |
| Reduction to date | Rs. 10,000 |
| Sale to date | Rs. 200,000 |
| Merchandise on order for delivery | Rs. 55,000 |
| Initial mark-up on retail | 60% |
| Stock available | Rs. 195,000 |

Required: Open-to-buy at cost showing merchandise received to date.

[2+3+1]

Ans: Nil

16. 2059 Q.No. 5

The total stock needed of a retail stores on 15th, Ashadh is Rs. 600,000. The planned sales for the month Ashadh is Rs. 800,000 and planned reduction is Rs. 20,000. The actual sales and reduction to date were of Rs. 300,000 and Rs. 15,000 respectively.

The stores informed that the stock received to date was of Rs. 400,000. The purchasing department reported that the stock on order for delivery was of Rs. 120,000.

On 1st Ashadh the beginning inventory was of Rs. 95,000. Initial mark-up on retail 60%.

Required:

1. Planned EOM the month Ashadh.
2. Available stock on 15th Ashadh.
3. Open-to-buy at cost.

[3+2+1]

Ans: (1) Rs. 95,000 (2) Rs. 300,000 (2) Rs. 120,000

17. 2058 Q.No. 3

Nepal Impex Co. Ltd. has currently developed the Material Purchase Budget for the month of Jestha. The purchase manager is anxious to know the open-to-buy at cost on 20th Jestha. The planned data are:

| | |
|-----------------------------------|-------------|
| Planned sale for the month | Rs. 100,000 |
| Planned reduction for the month | Rs. 5,000 |
| Planned BOM inventory | Rs. 40,000 |
| Planned EOM inventory | Rs. 50,000 |
| Planned initial mark-up on retail | 40% |

The actual data are:

| | |
|--|------------|
| Actual sale to Baishak 20 th | Rs. 60,000 |
| Actual reduction to Baishak 20 th | Rs. 3,000 |
| Goods received to date | Rs. 70,000 |

The stock on order for delivery is Rs. 25,000.

Required:

1. Total stock needed and available stock on 20th Baishak.
2. Open-to-buy at cost on 20th Baishak.

Ans: (1) Rs. 92,000 and Rs. 7,200 (2) Rs. 12,000

MBA

18. 2064 Q.No. 2 a

The details regarding materials for a trading company have been presented below:

| | |
|---------------------------------|-------------|
| Sales planning for the month | Rs. 200,000 |
| Beginning of month inventory | 80,000 |
| Ending of month inventory | 80,000 |
| Planned reduction for the month | 8,000 |
| Actual sale to date | 120,000 |
| Actual reduction to date | 4,000 |
| Goods received to date | 60,000 |
| Stock on order for delivery | 10,000 |
| Initial mark-up on retail 40% | |

Required: Open-to-buy amount

[4+4+2]

Ans: Rs. 82,800

19. 2059 Q.No. 7(b)

The total available stock of an inventory at a certain date is Rs. 10,000 and open-to-buy at retail is Rs. 5,000. The open-to-buy at cost is Rs. 3,000.

Required: Total stock needed for the remaining period and initial mark-up rate on retail. [5]

Ans: Rs. 15,000 and 40%

20. 2058 Q.No. 2(a)

The sales planning of a retail shop for this month is Rs. 500,000. The planned reduction for the month is Rs. 20,000. It is also planned that ending stock at end of month should be Rs. 200,000. The actual records shown by financial account are as under:

| | |
|------------------------------|------------|
| Reduction to date | Rs. 12,000 |
| Sales to date | 300,000 |
| Merchandise received to date | 200,000 |
| Beginning merchandise | 250,000 |
| Stock on order for delivery | 100,000 |
| Open-to-buy at cost | 102,000 |

Required: Open-to-buy at selling price showing the initial mark-up percentage on retail. [10]

Ans: Rs. 170,000 & 40%

21. 2057 Q.No. 3(a)

The merchandise available on 18th Aswin is Rs. 90,000, which does not include the merchandise on delivery amounting to Rs. 50,000. The beginning merchandise on 1st Aswin was Rs. 100,000 and goods received to date was Rs. 200,000. The actual reduction to date was Rs. 10,000. The planning for merchandise for the month is as under:

| | |
|-------------------------------|-------------|
| Ending balance of merchandise | Rs. 95,000 |
| Reduction for the month | Rs. 15,000 |
| Sale for the month | Rs. 400,000 |

Initial mark-up 40% on retail.

Required:

- Actual sale to date.
- Open-to-buy at cost.

[10]

Ans: (1) Rs. 200,000 (2) Rs. 96,000

22. 2056 Q.No. 1(a)

The details regarding merchandise for a non-manufacturing company have been presented below:

| | | |
|----------|--------------------------------|-----------|
| Planned: | Reduction for the month | Rs. 1,000 |
| | Sale for the month | 15,000 |
| | Ending balance of merchandise | 20,000 |
| Actual: | Reduction to date | 700 |
| | Sale to date | 10,000 |
| | Merchandise receivable to date | 8,000 |

| | |
|-----------------------------|--------|
| Beginning inventory | 10,000 |
| Stock on order for delivery | 2,000 |
| Open-to-buy at cost | 9,600 |

Required: Open-to-buy at retail showing initial mark-up on retail.

[10]

Ans: Rs. 16,000 and 40%

23. 2055 Q.No. 7(c)

The following information is given to you.

| | |
|-----------------------------------|--------|
| Planned EOM Inventory | 20,000 |
| Planned sale for remaining period | 5,000 |
| Planned reduction for the month | 1,000 |
| Total available stock | 16,000 |

Planned initial mark up 40% on retail

Required: Open-to-buy amount.

[5]

Ans: Rs. 6,000

24. 2054 Q.No. 4(a)

The sales planning of a retail shop for the month of Aswin is Rs. 1,00,000. On 1st Aswin beginning inventory was Rs. 40,000 and the planned EOM inventory is also of the same amount. The planned reduction for the month is Rs. 4,000. The actual sale and actual reduction to date is Rs 60,000 and Rs 2,000 respectively. Merchandise received to date is Rs 30,000. The stock in order for deliver is Rs. 5,000. You are required to calculate open-to-buy for the company assuming that the initial mark-up is 40% on retail.

[10]

Ans: Rs. 41,400

25. 2053 Q.No. 6(a)

The details regarding material for a trading (non-manufacturing) company have been presented below.

| | | |
|------|------------------------------------|------------|
| I | Desired ending balance of material | Rs. 20,000 |
| II | Beginning balance of material | Rs. 18,000 |
| III | Planned reduction of material | Rs. 2,000 |
| IV | Planned sales | Rs. 60,000 |
| V | Actual sales to date | Rs. 40,000 |
| VI | Actual reductions | Rs. 1,000 |
| VII | Material received to date | Rs. 48,000 |
| VIII | Loading | 50% |

Required: Open to buy quantities.

[5]

Ans: Rs. 8,000

26. 2051 Q.No. 2(a)

XYZ Company has adopted a policy of charging 50% on its gross sales revenue for gross margin and maintaining a uniform inventory policy of merchandise. The company also has been following EOQ policy for purchases and for which the relative month has been divided into four quarters, with a lead-time of 7 days.

From the additional information provided as below you are required to calculate open to buy quantity for the company:

[10]

| | |
|---|------------|
| Budgeted sales for January | Rs. 20,000 |
| Beginning inventory of merchandise on Jan 1 | Rs. 10,000 |
| Actual sales for 1 st three quarter of Jan. | Rs. 16,000 |
| Budgeted merchandise less on storage | Rs. 1,000 |
| Actual loss to date | Rs. 500 |
| Merchandise received from supplier to date at selling price | Rs. 16,000 |

Ans: Rs. 2,500

27. 2041 Q.No. 10

Assume the following data for in certain department of a non-manufacturing concern. The period covered is February 1 through February 20.

| | |
|--------------------------------|-----------|
| Planned sales for February | Rs. 9,000 |
| Beginning of month inventory | 15,000 |
| Planned end of month inventory | 25,000 |

| | |
|--------------------------------------|-------|
| Planned reductions for the month | 600 |
| Actual sales to date (February 20) | 6,000 |
| Merchandise received to date | 8,000 |
| Stock on order for February delivery | 3,000 |
| Planned initial mark up | 40% |
| Actual reductions to date | 200 |

Required: Compute the open-to-buy amount as of February 20 for the department. [20]

Ans: Rs. 5,160

6. PLANNING AND CONTROLLING OF DIRECT LABOUR

MBS

THEORETICAL QUESTIONS

1. 2070 Old Q.No. 8

"Performance reports deal with control aspect of profit planning and control", discuss, and also explain its essential features. [3+3=6]

2. 2067 (Old) Q.No. 10 a

What is performance report? Why the reporting the performance is necessary? Write the features of performance report. [2+3+3=8]

3. 2065 Q.No. 8

What is performance report and what are its essential features? [3+3=6]

4. 2059 Q.No. 7 OR

"The main purpose of the labour budget is to establish a basis for control of direct labour". Discuss. Also explain other purpose of labour budget.

5. 2063 Q.No. 7 OR

Write short notes on:

- Importance of margin of safety to management
- Primary purpose of internal performance report. [3+3]

NUMERICAL PROBLEMS

6. 2071 Q.No. 7 OR

A company manufacturer two products X and Y Product 'X' is processed through all process and product 'Y' is processed process I and process II only. The company prepares a quarterly production plan. The planned data developed are as under.

- a. Planned production units:

| Months | Baisakh | Jestha | Ashad |
|-----------|---------|--------|-------|
| Product X | 1,000 | 3,000 | 2,000 |
| Product Y | 2,000 | 3,000 | 3,000 |

- b. Direct labour hours planned per unit of product:

| Product | Process I | Process II | Process III |
|---------|-----------|------------|-------------|
| X | 0.2 | 0.5 | 0.4 |
| Y | 0.3 | 0.3 | - |

- c. Average wage rate planned per DLH

| | |
|-------------|--------------|
| Process I | Rs 4 per DLH |
| Process II | Rs 3 per DLH |
| Process III | Rs 5 per DLH |

- d. Actual data for process I for the month Baisakh for product 'X' was:

| | |
|---------------------|-----------|
| Production units | 900 units |
| Direct labour hours | 190 hours |
| Direct labour costs | Rs. 855 |

Required:

- Direct Labour Cost Budget
- Performance report of process I for the product 'X' for the month Baisakh. [7+3=10]

Ans: (i) Rs. 14,400; Rs. 16,200; Rs. 12,000 (ii) Output = 100 units, 10% (U); DLH = 10 hours, 5.56% (U); Wage rate = Re. 0.50, 12.50% (U); Cost = Rs. 135, 18.75% (U)

7. 2070 Q.No. 7

A company manufactures two products 'X' and 'Y', Product 'X' passes through all production departments and product 'Y' passes through department '1' and department '3' only. The standard labour times and wages rate for each department are:

| Departments | Rate per hour | Direct labour hours per unit | |
|-------------|---------------|------------------------------|-----------|
| | | Product X | Product Y |
| 1 | Rs.2 | 0.5 | 0.4 |
| 2 | Rs.3 | 1.25 | - |
| 3 | Rs.2 | 1 | 0.8 |

The production budget shows the units to be produced in the first six months and second six months of a certain year as follows:

| Product | 1 st six months | 2 nd six months |
|---------|----------------------------|----------------------------|
| X | 9,200 | 10,000 |
| Y | 12,000 | 9,000 |

The factory works 8 hours a day, 6 days in a week, and 52 weeks in a year. For leave, holidays and other causes the lost hours are estimated at 496 hours per year.

Required:

- ① Direct labour hour budget
- ② Direct labour cost budget
- ③ Manpower budget

[4+3+3=10]

Ans: ① Product X: 39,700 DLH; Product Y: 38,300 DLH ② Product X: 90,900 DLC; Product Y: 89,100 DLC ③ Product X: 26.4 no. of workers; Product Y: 12.6 no. of workers

8. 2070 Old Q.No. 9b

A company's standard time and standard hourly wage rate are as follows:

| Departments | Standard hour per unit | Wages rate per hour |
|-------------|------------------------|---------------------|
| A | 2 hr | Rs.3 |
| B | 4 hr | Rs.4 |

The production units projected for three months are as follows:

| Months | January | February | March |
|------------------|-------------|-------------|-------------|
| Production units | 4,000 units | 6,000 units | 7,000 units |

The actual of Department 'A' for January are as follows:

| | |
|---------------------|-----------|
| Production units | 4,500 |
| Direct labour hour | 8,100 |
| Wages rate per hour | Rs.3.2 |
| Direct labour costs | Rs.25,920 |

Required:

- (a) Direct labour cost budget for January, February and March.
- (b) Performance report of Department 'A' for January.

[4+4=8]

Ans: (a) 88,000; 132,000; 154,000

9. 2069 Q. No. 7

A Manufacturing Company Ltd., producing product A and B has furnished the following planned data for consideration of budget and performance report.

1. Planned product units:

| Month / Product | A | B |
|-----------------|-------|-------|
| July | 1,500 | 2,500 |
| August | 2,000 | 3,000 |
| September | 3,000 | 4,000 |

2. Standard DLH planned per unit of output:

| Process / Product | A | B |
|-------------------|-----|-----|
| Process I | 0.4 | 0.3 |
| Process II | 0.3 | - |
| Process III | 0.2 | 0.4 |

3. Standard planned DLH rate:

| | |
|-------------|---------------|
| Process I | Rs. 3 per DLH |
| Process II | Rs. 4 per DLH |
| Process III | Rs. 5 per DLH |

Actual performance for the month of July regarding Product A with Process I are given as follows:

| | |
|---------------------|-------------|
| Output units | 1,350 units |
| Direct labour hours | 500 hours |
| Direct labour cost | Rs. 1,625 |

Required: ① Direct labour cost budget ② Performance report of Process I for Product A for the month of July. [6+4= 10]

Ans: (1) DLH: Product A = Rs. 1,350, Rs. 1,800; Rs. 2,700; Product B = Rs. 1,750; Rs. 2,100; Rs. 2,800; DLC: Product A = Rs. 5,100; 6,800; 10,200; Product B = RS. 7,250; Rs. 8,700; Rs. 11,600 (2) Output = 150 (U); DLH = 0.03 (F); Total DLH = 40 (F); Wages rate per hour = 0.25 (U); DLC = 5 (U)

10. 2068 Q.No. 7

A manufacturing company has the following direct labour requirements for the product 'Z'

| Departments | Standard time per unit | Hourly rate |
|-------------|------------------------|-------------|
| Crushing | 2 hours | Rs. 5 |
| Finishing | 4 hours | Rs. 3 |

The production units estimated for three months are:

| Months | January | February | March |
|------------------|---------|----------|-------|
| Production units | 3,000 | 4,000 | 5,000 |

Actual data for crushing department for the months of January:

| | |
|---------------------|------------|
| Production units | 3,100 |
| Direct labour hours | 6,000 |
| Wages rate per hour | Rs. 6 |
| Direct labour cost | Rs. 36,000 |

Required: (a) Direct labour cost budget (b) Performance report for crushing department for the month of January. [6 + 4 = 10]

Ans: (a) Rs. 264,000

11. 2068 Old Q.No. 2

Four processing units are involved in making a product in a manufacturing firm.

The direct labour hour and cost per direct labour hour in processing each product by the four processing units are as follows:

| Processing units | I | II | III | IV |
|-----------------------------|----------|----------|----------|----------|
| Direct labour hour per unit | 2.50 | 2.00 | 2.25 | 3.00 |
| Direct labour cost per hour | Rs. 3.00 | Rs. 4.00 | Rs. 4.50 | Rs. 5.00 |

The production scheduled for three months are as follows:

| Months | Output |
|---------|-------------|
| Shrawan | 3,000 units |
| Bhadra | 4,000 units |
| Ashwin | 5,000 units |

Required: (a) Direct labour hour budget for the three months Shrawan, Bhadra & Ashwin (b) Direct labour cost budget for the three months Shrawan, Bhadra & Ashwin. [3+3=6]

Ans: (a) Rs. 117,000 (b) Rs. 487,500

12. 2067 Q.No. 7

A Company's standard time and standard hourly wage rate are as follows:

| Departments | Standard Hour Per Unit | Hourly Wage Rate |
|-------------|------------------------|------------------|
| Cutting | 3 hours | Rs. 6 |
| Fitting | 4 hours | Rs. 8 |

The production units projected for 3 months are as follows:

| Months | Baishak | Jestha | Ashadh |
|------------------|---------|--------|--------|
| Production units | 5,000 | 7,000 | 9,000 |

The actual of cutting department for Baishak are as follows:

| | |
|---------------------|-------------|
| Production units | 5,200 |
| Direct labour hours | 15,400 |
| Wage rate per hour | Rs. 6.50 |
| Direct labour costs | Rs. 100,100 |

Required:

- Direct labour cost budget for Baishak, Jestha and Ashadh
- Performance report of cutting department for Baishak.

[6+4=10]

Ans: (a) Rs. Rs. 160,000; Rs. 224,000; Rs. 288,000 (b) Prod. Qty = 4% (F) DLH = 1.28% (F); Wages = 8.33% (U) DLC = 6.94% (U)

13. 2066 Q.No. 5

The actual direct labour cost incurred during Baishak by a processing section of a workshop @ Rs. 10 per DLH for 1,950 units of output was Rs. 7,800 and it was Rs. 12,000 during Jestha for 3,000 units of output.

The workshop's production schedule is as follows:

| Months | Production units |
|---------|------------------|
| Baishak | 2,000 |
| Jestha | 2,500 |

The products were realized through two operations.

The DLH and standard wage rate of those two operations are as follows:

| Operations | Standard DLH for one units | Standard wage rate per DLH |
|------------|----------------------------|----------------------------|
| Cutting | 0.5 | Rs. 6 |
| Processing | 0.4 | Rs. 9 |

Required:

- Direct labour cost budget for Baishak and Jestha.
- Performance report of processing operations.

[3+3]

14. 2065 Q.No. 4

A company manufactures two products P₁ and P₂. Both products are processed through Process I and P₂ through Process II. The company prepares a monthly profit plan. Profit plan data developed are as follows:

- Production unit 16,000 units each month
- Direct labour hours planned per unit of the product.

| | Product P ₁ | Product P ₂ |
|------------|------------------------|------------------------|
| Process I | 0.3 | 0.5 |
| Process II | — | 0.2 |

- Average wage rate per DLH planned:

| | |
|------------|-------|
| Process I | Rs. 3 |
| Process II | Rs. 2 |

The month of operations under the annual profit plan has just ended and the controller's department has provided the following actual data for Product P₁:

| | |
|---------------------|------------|
| Production units | 18,000. |
| direct labour hours | 6,000 |
| Direct labour cost | Rs. 16,500 |

- Required:** (a) Direct labour cost budget for the month (b) Performance report of Process I for the product P₁

[3+3=6]

Ans: Total DLC = Rs. 44,800

15. 2064 Q.No. 6

Star Metal Co. prepares an annual profit plan detailed by month. At the end of each month, performance reports are prepared for management that compares actual with budget standards. The production units estimated for three months are:

| Months | October | November | December |
|------------------|---------|----------|----------|
| Production units | 6,000 | 5,000 | 4,000 |

The company has the following direct labour hours and cost requirement for the production of one unit of output.

| Departments | D ₁ | D ₂ |
|-------------------------|----------------|----------------|
| Direct labour hours | 0.5 | 0.4 |
| Direct labour hour rate | Rs. 5 | Rs. 10 |

Actual data for Department D₁ for the month of October was:

| | |
|---------------------|------------|
| Production units | 6,500 |
| Direct labour hours | 3,000 |
| Direct labour cost | Rs. 18,000 |

Required:

- (a) Direct labour cost budget for 3 months
 (b) Performance report for department D₁ for the month October.

[4+2=6]

16. 2063 Q.No. 1

A company produces three products: A, B and C. All three products are processed through process I, B and C are through Process II and C through process III. The company prepares quarterly profit plan. The estimated production units, direct labour hours and rate per hour for the products are as under.

- i. Planned production units for three months.

| Months | Product A | Product B | Product C |
|--------|-----------|-----------|-----------|
| 1 | 3,000 | 2,000 | 1,000 |
| 2 | 4,000 | 3,000 | 2,000 |
| 3 | 5,000 | 4,000 | 3,000 |

- ii. Direct labour hours planned for one unit of product:

| Product | A | B | C |
|-------------|-----|---|---|
| Process I | 0.5 | 1 | 2 |
| Process II | - | 2 | 1 |
| Process III | - | - | 2 |

- iii. Planned average wages rate for hour.

| Process | I | II | III |
|--------------------|-------|-------|-------|
| Wage rate per hour | Rs. 5 | Rs. 6 | Rs. 8 |

Required: Direct labour cost budget by time, by process and by products.

[6]

17. 2062 Q.No. 6

A company produces a single product while involve three manufacturing departments. The planned direct labour hour and cost per hour by department are as under

| Departments Centre | I | II | III |
|------------------------------|-------|-------|--------|
| Direct labour hour, per unit | 0.5 | 0.4 | 0.2 |
| Direct labour cost, per hour | Rs. 5 | Rs. 6 | Rs. 10 |

The planned production for three months are:

| Months | Planned productions |
|--------|---------------------|
| April | 2,000 units |
| May | 1,000 units |
| June | 3,000 units |

Required:

1. Direct Labour Hours Budget for three months.
 2. Direct Labour Cost Budget for three months.

[3+3]

18. 2061 Q.No. 2

A finished product of a manufacturing company passes through two departments Processing and Finishing departments. Estimated direct labour hours (DLH) and rate per hour for the products are:

| Process | DLH per unit | Labour cost per hour |
|------------|--------------|----------------------|
| Processing | 1 | Rs. 5 |
| Finishing | 2 | Rs. 3 |

The sales department has developed the sales budget for the first four months of next year which are as follows:

| Months | January | February | March | April |
|-------------|---------|----------|-------|-------|
| Sales units | 4,000 | 3,000 | 5,000 | 5,000 |

The company has at present, the policy of having inventory of the product at the end of each month equal to the 50% of sales requirement of next month. The beginning stock on 1st January was 2,000 units.

Required:

Production Budget and Direct Labour cost Budget for three months ending 31st March. [2+4]

19. 2060 Q.No. 1.

A Company has the following direct labour requirement for a product, which passes through two successive departments A and B.

| Departments | Standard time for one unit | Hourly Rate |
|-------------|----------------------------|-------------|
| A | 0.5 hour | Rs. 10 |
| B | 0.6 hour | Rs. 5 |

The planned productions for three months are:

| Months | Production Units |
|----------|------------------|
| Baishakh | 1,000 |
| Jestha | 500 |
| Ashadh | 500 |

Actual data for department B for the month of Jestha:

Production units: 520
 Direct labour costs: 300 hours @ Rs. 6 Rs. 1800

Required:

- Direct labour cost budget for 3 months.
- Performance report for Department B for the month of Jestha.

[3+3]

Ans: (1) 1,100 : Rs. 8,000; 550 : Rs. 4,000; 550 : Rs. 4,000

20. 2058 Q.No. 5

A company produces two products, which passes through successive departments X and Y. The following planning data have been developed:

- From the production plan:

| Months | Product 1 | Product 2 |
|----------|-----------|-----------|
| Baishakh | 5,000 | 3,000 |
| Jestha | 6,000 | 4,000 |
| Ashadh | 4,000 | 5,000 |

- Standard labour time developed by the industrial engineers (hour per unit of product):

| Departments | Product 1 | Product 2 |
|-------------|-----------|-----------|
| 1 | 0.25 | 0.50 |
| 2 | 0.50 | 0.25 |

- Average wage rate to be budgeted:

| | |
|--------------|----------------|
| Department 1 | Rs.5 per hour |
| Department 2 | Rs. 4 per hour |

Required:

1. Direct labour hour budget, by time, by department, by product.
2. Direct labour cost budget, by time, by department, by product.

[6]

Ans: (1) 2,750; 3,500; 3,500 and 3,250; 4,000; 3,250 (2) Rs. 6,000; Rs. 7,500; Rs. 6,750

MBA**21. 2064 Q.No. 7 c**

A company has the following labour hours required for the production of a product.

| Department | Standard time | Hourly rate |
|----------------|---------------|-------------|
| D ₁ | 0.5 hr/unit | Rs. 10 |
| D ₂ | 0.8 hr/unit | Rs. 5 |

The planned production for the product is 10,000 units.

Required: Direct labour cost budget for the period.

[5]

22. 2059 Q.No. 4(a)

A Company produces a single product, which involves two manufacturing departments I and II. The standard labour hour per unit of finished product requires one hour in department I and half-an-hour in department II. The standard wage rate per hour is Rs. 3 in department I and Rs. 2 in department II. The company has a policy of manufacturing finished goods inventory equal to the following months sales. The sales for the four months would be:

| Months | Baishak | Jestha | Ashadh | Shrawan |
|-------------|---------|--------|--------|---------|
| Sales units | 2,000 | 1,000 | 2,000 | 1,000 |

Required: Direct labour cost budget for the first three months.

[10]

23. 2058 Q.No. 7(a)

Morang Tools Corporation has the following direct labour required for the production of a machine tool set:

| Departments | Standard time for 1 unit | Hourly rate |
|-------------|--------------------------|-------------|
| Machining | 5 hours | Rs. 20 |
| Assembly | 10 hours | Rs. 10 |

The production unit for the month is 5,000 units.

Required: Direct labour for the month.

[5]

24. 2057 Q.No. 1(b) / 2056

Palpa Metal Co. Ltd. has the following direct labour requirement for the production of "karuwa".

| Department | Standard time for 1 unit | Hourly rate |
|------------|--------------------------|-------------|
| Machining | 2 hrs. | Rs. 5 |
| Assembling | 5 hrs. | Rs. 4 |

The production units estimated for 3 months are:

| Months | Baishak | Jestha | Ashadh |
|------------------|---------|--------|--------|
| Production units | 3,000 | 4,000 | 5,000 |

Actual data for Machining department for the month of Baishak.

| | |
|---------------------|------------|
| Production units | 3,100 |
| Direct labour hours | 6,000 |
| Wage rate per hour | Rs. 6 |
| Direct labour cost | Rs. 36,000 |

Required:

1. Direct labour cost budget.
2. Performance report for machining department for the month of Baishak.

[10]

25. 2056 Q.No. 1(b)

A company produces a product, which passes through department X, and Y. The production plan for Bhadra is 10,000 units. The standard labour hour per unit and wage rate per hour is given below:

| Department | Standard labour hour | Wage rate per hour |
|------------|----------------------|--------------------|
| X | 0.5 | Rs. 2 |
| Y | 0.3 | Rs. 5 |

Actual data for department X for the month:

| | |
|--------------------------|--------|
| Production in units | 12,000 |
| Direct labour hours | 5,400 |
| Wage rate per hour (Rs.) | 2.20 |
| Direct labour cost (Rs.) | 11,880 |

Required:

1. Direct labour cost budget for the month of Bhadra.
2. Performance report for the department X for the month of Bhadra. [10]

26. 2055 Q.No. 1

Himalayan Expo Co. Ltd is producing three qualities of perfumes, ROSE, ORCHID and VISION. The company has three labour departments. Each product is involving more than one labour operations. The first and third department works for all three products, while department second works for ORCHID and VISION only.

The planned sale for the year is as follows:

| Rose | Orchid | Vision |
|-------------|-------------|-------------|
| 8,000 units | 5,000 units | 4,000 units |

The beginning and ending inventory for the year is estimated as follows:

| Inventory | Rose | Orchid | Vision |
|--------------------|-------|--------|--------|
| Beginning in units | NIL | 1,000 | 2,000 |
| Ending in units | 2,000 | 2,000 | 1,000 |

The factory works 9 hours a day, 5 days in a week, and 52 weeks in a year. For level, holidays and other causes the lost hours are estimated at 340 hours per year.

The budgeted hourly rates for each department and working hour per unit are given below:

| Department | Wages Rate per hr. | Rose | Orchid | Vision |
|------------|--------------------|----------|--------|--------|
| 1st | Rs. 2 | 3 hrs. | 4 hrs. | 2 hrs. |
| 2nd | Rs. 3 | 0 | 2 hrs. | 4 hrs. |
| 3rd | Rs. 6 | 1.5 hrs. | 5 hrs. | 3 hrs. |

Required: Prepare the annual

1. Production budget.
2. Direct labour hour budget.
3. Direct labour cost budget.
4. Manpower budget. [20]

27. 2054 Q.No. 5(a)

Ganesh Metal Company manufactures a single product, which passes through successive department X, Y and Z. The following are the budgeted standard time and rate for those departments:

| Departments | Standard Time | Standard Rate |
|-------------|-----------------|-----------------|
| X | 3 hrs. per unit | Rs. 10 per hour |
| Y | 5 hrs. per unit | Rs. 12 per hour |
| Z | 6 hrs. per unit | Rs. 5 per hour |

The planned sales for three months are as follows:

| | |
|---------|-----------|
| Baisakh | 400 units |
| Jestha | 500 units |
| Ashadh | 600 units |

The management decides to maintain the ending inventory of 200 units each month and there was no beginning inventory on Baishakh first.

You are required to prepare the direct labour cost budget for 3 months. [10]

28. 2053 Q.No. 2(a)

A manufacturing company has a policy of maintaining finished goods inventory of one and half times of next month sales figure. The expected sales for the next four months would be:

| | |
|----------------------|----------------------|
| Baisakh 20,000 units | Ashad 20,000 units |
| Jestha 10,000 units | Shrawan 10,000 units |

Beginning inventory of finished goods was 30,000 units. The finished product passes through two departments i.e. processing department and finishing department. Processing would need direct labour hour of 1 hour at a cost of Rs. 2 per hour and finishing department would need 1.5 hours at a cost of Rs. 4 per hour to produce 1 unit of output.

Required: Direct labour cost budget for the first three months.

[10]

29. 2052 Q.No. 4(a)

Lama Industries Ltd. produces two products designated as A and B. Management of the company has come to realize that there prevails imbalance among the sales, production, and inventory. For the last few years average inventory levels of A and B were respectively $\frac{1}{4}$ and $\frac{1}{3}$ of annual sales which are expected to remain the same for coming year also, the sales department has already developed sales budget for first quarter of the next year, which is as follows:

| Month | Sales in units | |
|----------|----------------|--------|
| | A | B |
| January | 8,000 | 12,000 |
| February | 10,000 | 14,000 |
| March | 11,000 | 13,000 |

Closing inventories of A and B in December last were 20,000 and 50,000 units respectively.

Direct labour hour requirement for these products are 1 hr. per unit and 1.5 hrs. per unit and labour cost per hour is Rs. 2.

Prepare direct labour cost budget for the next three months assuming that the finished goods inventory should be based on historical inventory turnover ratio.

[10]

30. 2051 Q.No. 1(a)

A pharmaceutical company produces a product called Alpha and which passes through the departments 1 and 2.

1. Production Plan (units):

| Time | Alpha |
|-------------|--------|
| January | 8,000 |
| February | 6,000 |
| March | 9,000 |
| 2nd Quarter | 24,000 |
| 3rd Quarter | 26,000 |
| 4th Quarter | 28,000 |

2. Standard labour hours per unit of finished goods:

| Dept. | Alpha | Average wage rate |
|-------|---------|-------------------|
| 1 | 0.3 hr. | Rs. 3.25 |
| 2 | 0.2 hr. | Rs. 4.25 |

3. Actual data of Department 1 for January:

| Product | Alpha |
|--------------------------|-------|
| Production (units) | 9,100 |
| Direct labour hours | 3,200 |
| Direct labour cost (Rs.) | 8,400 |

Required:

- Prepare direct labour cost budget by department.
- How satisfactory is the performance of Departmental for January? Justify your answer. [10]

31. 2045 Q.No. 9

Bostrand Company manufactures two products A and B, both of these two products are processed through certain manufacturing processes. Since product A is processed through all manufacturing processes (process 1, 2 and 3), direct labour is used in each of the three processes: in contrast, since product B is processed only through manufacturing processes 1 and 3, direct labour is used at only two points. The standard labour times planned for each product and for each process are:

| Process | Product A | | Product B | |
|---------|--------------|----------|--------------|-------|
| | Standard DLH | Price | Standard DLH | Price |
| 1 | 0.2 | Rs. 2.00 | 0.4 | Rs. 2 |
| 2 | 0.3 | Rs. 1.50 | — | — |
| 3 | 0.4 | Rs. 1.00 | 0.5 | Rs. 1 |

The production budget shows the units to be produced in a certain year as follows:

| Quarters | First | Second | Third | Fourth |
|----------|-------|--------|--------|--------|
| Prod: A | 8,000 | 10,000 | 12,000 | 15,000 |
| Prod: B | 9,000 | 10,000 | 11,000 | 12,000 |

Required: Prepare the statement showing total budgeted direct labour hours for the year (by time, process, and product). [20]

32. 2044 Q.No. 9

A certain company manufactures two products MX and NX and both of these products are processed through producing department A and B. The standard labour times planned for each product and average wage rates tentatively approved for planning purposes for each department are:

| Department | Direct labour hours per unit product | | Average hourly wage rate (Rs.) |
|------------|--------------------------------------|------------|--------------------------------|
| | Product MX | Product NX | |
| A | 0.5 | 0.3 | 2.0 |
| B | 0.3 | 0.2 | 3.0 |

The production budget shows the units to be produced in the first two quarters of a certain year as follows:

| Production | First Quarter | Second Quarter |
|------------|---------------|----------------|
| MX | 20,000 | 25,000 |
| NX | 15,000 | 10,000 |

Required Prepare the direct labour budget showing total budgeted direct labour cost and hours for the first two quarters of a year (by time, department and product). [20]

33. 2041 Q.No. 7

Superior Manufacturing Company uses direct labour in each producing department. Since product X is processed through all producing department, direct labour is used in each of the three departments. In contrast, since product Y is processed only through producing departments 1 and 3, direct labour is used at only two points. The standard labour times planned for each product for each department are:

| Department | Direct labour hours per unit of product | |
|------------|---|-----------|
| | Product X | Product Y |
| 1 | 0.4 | 0.2 |
| 2 | 0.2 | — |
| 3 | 0.4 | 0.2 |

The following average wages rates have been tentatively approved for planning purposes:

| Department | Average hourly wage rates (Rs.) |
|------------|---------------------------------|
| 1 | 2.0 |
| 2 | 1.5 |
| 3 | 1.0 |

The production budget shows the units to be produced in the first two quarters of a certain year as follows:

| Product | First Quarter | Second Quarter |
|---------|---------------|----------------|
| X | 3,000 | 4,000 |
| Y | 5,000 | 6,000 |

Prepare the direct labour budget for the first two quarters of a year to arrive at total budgeted direct labour cost (by time, department, and product). [20]

7. PLANNING AND CONTROLLING EXPENSE. OVERHEAD BUDGET

MBS

THEORETICAL QUESTIONS

1. 2068 Old Q.No. 8 or

Differentiate between.

- Expired and unexpired costs
- Allocation and apportionment of overhead

[3+3=6]

2. 2067 (Old) Q.No. 9

What are the important factors of production? Why and how planning of factors of production are done? Write the importance of planning for factors of production for profit planning & control. [4+6+6=16]

3. 2066 Q.No. 8

Write in brief with suitable example where necessary.

- Planning expenses
- Cost reduction and cost control

[3]

[3]

4. 2064 Q.No. 8 b

Write in brief with suitable example where necessary:

Controllable and non-controllable cost

[3]

5. 2062 Q. No. 7

"The unique problem in planning and controlling expenses is the selection of appropriate activity for each responsibility centre." Discuss. [6]

6. 2062 Q.No. 7 OR

Distinguish between

- Controllable and Non-Controllable Expenses
- Cost Reduction and Cost Control

7. 2061 Q.No. 7 OR

Distinguish between Controllable and Non-Controllable Expenses

[3+3]

8. 2061 Q.No. 7 OR

Distinguish between Cost Reduction and Cost Control

NUMERICAL PROBLEMS

9. 2071 Q.No. 9

The activity base and annual department overhead budget of a company are as under:

| Departments | Activity base | Overhead (Rs.) |
|--------------------|---------------------|----------------|
| Production Dept. X | Direct machine hour | 14,280 |
| Production Dept. Y | Direct machine hour | 20,460 |
| Service Dept. | Direct repair hour | 12,060 |

The company manufactures two products 'P' and 'Q'. The planned production, direct material cost and direct labour cost for the production are as follows:

| Product | Planned production | Direct material | Direct labour |
|---------|--------------------|-----------------|---------------|
| P | 3,000 units | Rs. 30,000 | Rs. 24,000 |
| Q | 2,000 units | Rs. 40,000 | Rs. 20,000 |

The company establishes the following standards for planning purpose.

| | |
|-------------------------|--|
| Production department X | 0.3 D.M.H. for product 'P' 0.4 D.M.H. for product 'Q' |
|-------------------------|--|

| | |
|-------------------------|--|
| Production department Y | 0.7 D.M.H. for product 'P' 0.6 D.M.H. for product 'Q' |
| Service department | 0.2 D.R.H. for 1 D.M.H. for Dept. 'X' 0.1 D.R.H. for 1 D.M.H. for Dept. 'Y' |

Required:

- Computation of volume of work or activity
- Overhead rate for production department
- Total cost of goods manufactured for each product

[3+6+6=15]

Ans: (i) Dept X: Product P = 900 DMH; Product Q = 800 DMH; Dept Y: Product P = 2,100 DMH; Product Q = 1,200 DMH; Service dept: Dept X = 340 DMH; Dept Y = 330 DMH (ii) Rs. 12 DMH and Rs. 8 (iii) Rs. 81,600 and Rs. 79,200

10. 2070 Q.No. 9

Following are the annual production plan of products A & B.

| Product | Production plan |
|---------|-----------------|
| A | 50,000 units |
| B | 80,000 litres |

There are three producing departments and two service departments to produce the products. The standard time of production departments to produce products are:

| Product | Department | | |
|---------|------------|---------|---------|
| | 1 | 2 | 3 |
| A | 0.4 DLH | 0.6 DLH | - |
| B | 0.6 DLH | - | 1.2 DLH |

The standard service rate of service departments are:

| Departments | Service departments | |
|-------------|----------------------|--------------------------|
| | Maintenance | Electricity |
| Electricity | 1 DRH for 1 KWH | - |
| 1 | 5 DRH for 100 DLH | 5 KWH for 200 DLH |
| 2 | 20 DRH for 500 units | 0.06 KWH for 10 units |
| 3 | 6 DRH for 800 litres | 0.775 KWH for 100 litres |

The planned overhead for each department is as follows:

| Departments | Overhead (Rs.) |
|-------------|----------------|
| Maintenance | 228,000 |
| Electricity | 192,000 |
| 1 | 200,000 |
| 2 | 100,000 |
| 3 | 200,000 |

Following are the annual budgeted direct material cost and direct labour cost for product A and B

| Product | D. Material cost | Direct. labour cost |
|---------|------------------|---------------------|
| A | Rs.350,000 | Rs.200,000 |
| B | Rs.340,000 | Rs.300,000 |

Required:

- Compute budgeted volume of activities for each department
- Overhead rate for all departments
- Compute cost of goods manufactured per unit of each product

[15]

Ans: i. Dept. 1: 68,000 DLH; Dept. 2: 50,000 units; Dept 3: 80,000 Liters; Electricity Dept: 1,600 KWH; Maintenance Dept: 7,600 DRH; ii. Overhead rate: Dept 1: Rs.5.9412; Dept 2: Rs.4.1; Dept 3: Rs.3.8875; iii. Product A: Rs.20.28; B: Rs.13.70

11. 2070 Old Q.No. 6

A company produces two products M and N. The company has three production departments and one service department. The approved production plan of the company shows the number of units to be produced in a period are 3,000 units of "M" and 6,000 units of "N".

The standard time for these two products are as under:

Direct Machine hour per unit:

| Production Departments | Product M | Product N |
|------------------------|-----------|-----------|
| I | 0.2 DMH | 0.2 DMH |
| II | 0.3 DMH | — |
| III | 0.1 DMH | 0.3 DMH |

The standard direct repair hour (DRH) of service department to production departments are:

| | Dept I. | Dept II. | Dept III. |
|---------------------------|---------|----------|-----------|
| Service Dept. (for 1 DMH) | 0.1 | 0.2 | 0.1 |

The budgeted overhead expenses for each department are:

| Departments | I | II | III | Service |
|------------------|----------|----------|----------|----------|
| Planned overhead | Rs.8,280 | Rs.2,880 | Rs.7,560 | Rs.2,280 |

Required:

- (i) Volume of work or activity
 (ii) Overhead rate for each department

[3+3=6]

Ans: (i) Dept I: 1,800 DMH; Dept. II: 3,000 units; Dept III: 4,800 DMH; Service Dept: 840 DRH; (ii) Dept I: Rs.4.87; Dept II: Rs.0.923; Dept II: Rs.1.85

12. 2069 Q. No. 9

A Manufacturing Company Ltd. Produces two products, via, A and B. The planned production and direct labour cost for the production are given below:

| Product | Planned product units | Direct material | Direct labour |
|---------|-----------------------|-----------------|---------------|
| A | 5,000 | Rs. 50,000 | Rs. 40,000 |
| B | 3,000 | Rs. 60,000 | Rs. 30,000 |

The company set up the following standard for planning purpose:

| Department: | |
|---------------|--|
| Production: X | 0.4 MH for A 0.5 MH for B |
| Y | 0.6 MH for A 0.8 MH for B |
| Service | 0.3 Repair hour for 1 MH for Dept. X 0.2 Repair hour for 1 MH for Dept. Y |

The activity base annual departmental overhead budget of the company is given below:

| Department | Activity base | Overhead cost |
|---------------|---------------|---------------|
| Production: X | Machine hour | Rs. 21,350 |
| Y | Machine hour | Rs. 30,780 |
| Service | Repair hours | Rs. 16,614 |

Required:

- ① Compute the volume of work activity.
 ② OH rate for product departments
 ③ Total cost of goods manufactured for each product.

[3+6+6= 15]

Ans (1) X = Rs. 3,500; Y = Rs. 5,400; Service = Rs. 2,130 (2) X = Rs. 8.44/MH and Y = Rs. 7.26/MH

13. 2068 Q.No. 9

A company manufactures two products; A and B. The production plan and direct cost for the products are as follows:

| Product | Planned production | Direct material | Direct labour |
|---------|--------------------|-----------------|---------------|
| A | 3,000 units | Rs. 30,000 | Rs. 24,000 |
| B | 2,000 units | Rs. 40,000 | Rs. 20,000 |

It has two production department X and Y and one service department. The standard time of these two products is as follows:

| Product | Department X | Department Y |
|---------|-------------------|-------------------|
| A | 0.3 machine hours | 0.7 machine hours |
| B | 0.4 machine hours | 0.6 machine hours |

The direct repair hour in department X and Y for machine hour is 0.2 and 0.3 respectively. The planned annual overhead project is given below:

| | |
|--------------------|------------|
| Department X | Rs. 14,280 |
| Department Y | Rs. 20,460 |
| Service department | Rs. 12,060 |

Required: (a) Budgeted volume activity for each department (b) Overhead rate budget for each product (c) Cost of goods manufactured budget for each product. [5 + 5 + 5 = 15]

Ans: (a) X = 1,700 MH; Y = 3,300 MH; S = 1,330 DRH (b) X = 10.21/MH; Y = 8.92/MH; (c) A = 9.31/unit; B = 9.44/unit

14. 2066 Q.No. 9b

The annual plan of two products A and B are 10,000 and 20,000 units respectively. The activity base and annual departmental overhead budget are as under:

| Departments | Activity base | Overhead (Rs.) |
|-------------|-----------------------------|----------------|
| 1 | DLH, Direct labour hours | 56,000 |
| 2 | Units of Product A | 50,000 |
| SD 1 | DKWH, Direct kilowatt hours | 6,800 |
| SD 2 | DRH, Direct repair hours | 43,200 |

Department 1 works for both products, while Department 2 works only on product A. These both departments are production departments and the standard time of the products are as follows:

| Products | Dept. 1 | Dept. 2 |
|----------|---------|---------|
| A | 0.4 DLH | 0.6 DLH |
| B | 0.5 DLH | - |

The standard service rates of SD1 and SD2 are:

| | |
|-------------------------|----------------------|
| Service Department SD1: | |
| Department 1 | 0.01 DKWH for 1 DLH |
| Department 2 | 0.02 DKWH for 1 unit |
| Service Department SD2: | |
| Department 1 | 0.05 DRH for 1 DLH |
| Department 2 | 0.04 DRH for 1 unit |
| Department SD1 | 1 DRH for 1 DKWH |

Required:

- a. Volume of work or activity
b. Budget overhead rate for department 1 and department 2

[4+4]

15. 2064 Q.No. 3

A Company produces two products A and B. The company has three production departments and one service department. The approved production plan of the company shows the number of units to be produced in a period are 4,000 units of A and 5,000 units of B. The standard time for these two products are as under.

Direct labour Hour Per Unit.

| Production Departments | Product A | Product B |
|------------------------|-----------|-----------|
| I | 0.2 DLH | - |
| II | 0.4 DLH | 0.2 DLH |
| III | 0.3 DLH | 0.4 DLH |

The standard direct repair hour (DRH) of service department to production departments are:

| | Department I | Department II | Department III |
|--------------------------|--------------|---------------|----------------|
| Department S (for 1 DLH) | 0.2 DRH | 0.1 DRH | 0.2 DRH |

The budgeted overhead expenses for each department are:

| Departments | I | II | III | S |
|------------------|-----------|-----------|------------|-----------|
| Planned overhead | Rs. 4,000 | Rs. 7,800 | Rs. 12,800 | Rs. 1,590 |

Required:

- (a) Volume of work or activity (b) Overhead rate for each department

[3+3=6]

Ans: (a) 4,000 units; 2,600; 3,200 DLH & 1,060 DRH (b) Rs. 1.06; Rs. 3.15 & Rs. 4.30

16. 2059 Q.No. 8

Overhead of a factory and other necessary particulars are mentioned below:

| | Production department I | Production department II | Service department | Repair department |
|-------------------------------|-------------------------|--------------------------|--------------------|-------------------|
| Indirect wages | Rs. 10,000 | Rs. 4,000 | Rs. 1,600 | Rs. 2,000 |
| Number of workers | 40 | 30 | 20 | 10 |
| Space occupied (in sq. metre) | 1,000 | 500 | 400 | 100 |
| Horse power of machine | 20 | 10 | 10 | 10 |
| Value of machine | Rs. 400,000 | Rs. 300,000 | Rs. 200,000 | Rs. 100,000 |

Electricity power expenses for machine amounting to Rs. 80,000; annual depreciation of machine of Rs. 140,000; annual rent of Rs. 60,000 for the building obtained on hire and cafeteria management expenses of Rs. 27,000 are overall overheads which need allocation of most suitable basis available.

| | Production departments | | Repair department |
|-----------------------------|------------------------|------------------|-------------------|
| | I | II | |
| Machine hours (MH) produced | 2,000 | 1,000 | — |
| Service hours consumed | 10 per MH | 5 per MH | 5,000 SH |
| Repair hours provided | 1 for every 10 MH | 2 for every 5 MH | — |

Required: Overhead per MH for the production departments I and II after reallocating overhead of service and repair departments.

[2+2+1+1]

Ans: Rs. 98.43 & Rs. 127.73

MBA

17. 2064 Q.No. 7 b

The planned production of a company for a period is as under.

| | |
|-----------|-------------|
| Product A | 2,000 units |
| Product B | 3,000 units |

The company has two production departments and one service department.

The relevant information of the department are:

| Department | Types of department | Activity-base |
|------------------------|---------------------|---------------------|
| x | Production | Units of product A |
| y | Production | Direct machine hour |
| Repair and maintenance | Service | Direct repair hour |

The repair hours are 0.2 hours for each units of Department x and 0.4 hour for each Direct Machine Hour in Department y. The standard time for producing these two products are:

| Department | Product A | Product B |
|------------|-----------|-----------|
| x | 1 hour | 0 |
| y | 2 hour | 4 hours |

Required: Compute the volume of works of each department

[5]

Ans: 2,000 units; 16,000 DMH and 6,800 DRH

18. 2059 Q.No. 1(a)

The annual plan of Product X and Y are 5,000 and 10,000 units respectively. It has three producing departments I, II and III. The standard time in labour hours (DLH) for these two products are as follows:

| Department | I | II | III |
|------------------------------|-----|-----|-----|
| Direct labour hour per unit: | | | |
| Product X | 0.3 | 0.2 | 0.5 |
| Product Y | — | 0.4 | 0.6 |

It also has two-service department A and B and which provide their services to production departments. The standard service hours of these two departments are as given below:

| Receiving Departments | Department A | Department B |
|-----------------------|------------------------------------|------------------------------|
| Department I | 0.3 direct repair hour for 1 DLH | 0.2 kilowatt hours for 1 DLH |
| Department II | 0.2 DRH for 1 DLH | 0.1 kilowatt hour for 1 DLH |
| Department III | 0.1 DRH for 1 DLH | 0.1 KWH for 1 DLH |
| Department B | 0.1 DRH for 1 direct kilowatt hour | |

The budgeted overhead expenses for each department are as follows:

| Department | I | II | III | A | B |
|----------------|--------|--------|--------|--------|--------|
| Overhead (Rs.) | 15,000 | 50,000 | 85,000 | 12,325 | 15,675 |

Required: Overhead rate for each production department.

[10]

Ans: Rs. 13.50; Rs. 12; Rs. 11.5

19. 2059 Q.No. 7(d)

The planned and actual result specified the following data for a department for the month of Ashad:

| | Planning | Actual |
|------------------------|-----------|-----------|
| Department output | 1,100 | 1,000 |
| Machine hours in total | 1,100 | 1,100 |
| Overhead | Rs. 5,500 | Rs. 6,050 |

Required: Department performance report of Ashadh.

[5]

Ans: Budgeted MH for actual output = 1,000 MH and Overhead cost per actual MH = Rs. 5,500

20. 2058 Q.No. 4(a)

The activity base and annual departmental overhead budget of a company are as under.

| Departments | Activity base | Overhead (Rs.) |
|----------------|----------------------|----------------|
| D ₁ | Direct labour hour | 25,760 |
| D ₂ | Units of Product X | 4,850 |
| S ₁ | Direct machine hours | 2,800 |
| S ₂ | Direct repair hours | 22,590 |

The company manufactures two products X and Y. Department D₂ works only on product X, while department D₁ works on both products. The planned production units of X and Y for the period are 2,000 and 3,000 units respectively. The company establishes the following standard planning purpose:

| | |
|--------------------------------------|---|
| Production department D ₁ | 0.4 hour for product X; 0.5 hour for product Y |
| Production department D ₂ | 200 units of X |
| Service department S ₁ | For D ₁ , 0.1 for every direct labour hour. For D ₂ , 0.025 for every unit of product X. |
| Service department S ₂ | For D ₁ , 1 direct repair hour for 4 DLH. For D ₂ , 0.075 for every unit of product X. For S ₁ , 1 DRH for 10 DMH |

Required: (1) Volume of work schedule (2) Budgeted overhead rate for all departments. [10]

Ans: (1) 2,300 DLH; 2,000 units; 280 DMH; 753 DRH (2) Rs. 20/DLH; Rs. 10 DLH

21. 2057 Q.No. 2(a)

A certain company which manufactures two products P₁ and P₂ has two producing department (Department 1 and 2) and two-service department X and Y. The production plan of the company for the year is 1,000 units of product P₁ and 2,000 units of product P₂. Standard direct labour hour (DLH) to produce this product are as follows:

| Department | Product P ₁ | Product P ₂ |
|------------|------------------------|------------------------|
| 1 | 0.6 | — |
| 2 | 0.5 | 0.4 |

The standard services ratio of X and Y are as under:

| | | |
|-----------------------|--|--|
| Service department X: | For department 1- For department 2- | 1 direct machine hour for 10 units 0.1 direct machine hour for 1 unit |
|-----------------------|--|--|

| | | |
|-----------------------|---|---|
| Service department Y: | For department X- For department 1- For department 2- | 0.5 direct repair hour for 1 direct machine hour 1 direct repair hour for 20 units 1 direct repair hour for 25 direct labour hour |
|-----------------------|---|---|

The budgeted overhead expenses for each department are:

| Department | Y | X | D ₁ | D ₂ |
|------------|-----------|-----------|----------------|----------------|
| Overhead | Rs. 8,680 | Rs. 5,750 | Rs. 6,500 | Rs. 5,070 |

Required:

1. Computation of volume of work or activity.
2. Overhead rate for all departments.

[10]

Ans: (1) 800 DLH; 1,300 DLH, 300 DMH; 302 DRH (2) Rs. 19.82 /DLH; Rs. 10.95/DLH

22. 2056 Q.No. 2 (c)

A company manufactures two product: P₁ and P₂. The production plan and direct cost for the products are as follows:

| Product | Planned Production | Direct material | Direct labour |
|----------------|--------------------|-----------------|---------------|
| P ₁ | 3,000 units | Rs. 15,000 | Rs. 12,000 |
| P ₂ | 2,000 units | Rs. 20,000 | Rs. 10,000 |

It has two producing departments and one service department. The standard times of these two products are as follows:

| Product | Department A | Department B |
|----------------|-------------------------|-------------------------|
| P ₁ | 0.3 direct machine hour | 0.7 direct machine hour |
| P ₂ | 0.4 direct machine hour | 0.6 direct machine hour |

The direct repair hour (DRH) in department A and B for each machine hour is 0.2 and 0.1 respectively. The annual planned overhead budget is as follow:

| | |
|--------------------|------------|
| Department A. | Rs. 7,140 |
| Department B | Rs. 10,230 |
| Service Department | Rs. 6030 |

Required:

1. Overhead rate for production department.
2. Total cost of goods manufactured for each product.

[10]

Ans: (1) Rs. 6/DMH & Rs. 4 DMH (2) 13.60 and 19.8

23. 2055 Q.No. 5(a)

Agro-industry Pvt. Ltd. manufactures two products A₁ and A₂. Following are the annual production plan:

Product A₁ → units to be produced 5,000 units.

Product A₂ → units to be produced 8,000 units.

The annual cost and other relevant information of the departments are as follows:

| Departments | Types of Depts. | Activity Base | Overhead Cost |
|-----------------|-----------------|---------------------------------|---------------|
| X | Producing | Units of product A ₁ | Rs. 25,000 |
| Y | Producing | Direct machine hour | Rs. 24,000 |
| Repair & Maint. | Servicing | Direct repair hour | Rs. 8,000 |

The standard time for producing these two products are as follows:

| Products | Department X | Department Y |
|----------------|--------------|--------------|
| A ₁ | 1 hr. | 0.4 DMH |
| A ₂ | 0 hr. | 0.5 DMH |

The repair hours are 0.02 for each unit of A₁ and 0.05 for each direct machine hour in department Y.

Required: Overhead rates for the two producing departments.

[10]

Ans: Rs. 5.40 and Rs. 5

24. 2055 Q.No. 7(d)

A department of Expo Himal Co. works for 2 products namely 'S-Wonder' and 'T-Wonder'. The overhead allocated for the department is Rs. 20,000. It works 4,000 direct machine hour for 'S-Wonder' and 6,000 direct machine hour for 'T-Wonder'. The other estimated expenses are as follows:

| | <u>Direct Materials</u> | <u>Direct Labour</u> |
|--------------------|-------------------------|----------------------|
| Product 'S-Wonder' | Rs. 30,000 | Rs. 40,000 |
| Product 'T-Wonder' | Rs. 40,000 | Rs. 30,000 |

Required: Planned cost of goods manufactured for each product.

[5]

Ans: Rs. 78,000 and Rs. 82,000

25. 2054 Q.No. 3(a)

The Nesco Export Co. is considering to bringing two new products in the export market branded as 'Nexpo' and 'Expo'. It has two producing departments and one service department. The standard time of these two products as follows:

| Product | Department I | Department II | Production units |
|---------|------------------------|------------------------|------------------|
| Nexpo | 0.5 Direct labour hour | 0.4 Direct labour hour | 1,000 |
| Expo | 0.4 Direct labour hour | — | 2,000 |

The standard service rates of the service departments is as follows:

Dept. I → 0.2 hour for each direct labour hour

Dept. II → 0.1 hour for each direct labour hour

The annual planned overheads are as follows:

Dept. I Rs. 28,600

Dept. II Rs. 14,400

Service Dept. Rs. 12,000

Required:

1. Compute the volume of work or activity.
2. Compute the overhead rate for producing departments.

[10]

Ans: (1) 1,300 DLH; 400 DLH; 300 DRM (2) Rs. 30 /DLH and Rs. 40 /DLH

26. 2053 Q.No. 6(b)

A finished product of a manufacturing company passes through two departments namely A and B. Department-A needs 2 hours to process and department-B needs 1 hour. These departments are serviced by the maintenance department and each hour of departments need 0.5 hours of service from maintenance department. Other details of indirect expenses are given below:

| Departments | A | B | Repairs |
|----------------|------------------|----------------|---------|
| Activity hours | 10,000 | 5,000 | 7,500 |
| Variable cost | Rs. 0.5 per hour | Rs. 1 per hour | Nil |
| Fixed cost | Rs. 15,000 | Rs. 10,000 | 30,000 |

Required: Budgeted overhead cost per unit.

[5]

Ans: Rs. 13

27. 2052 Q.No. 6

Following are the annual production plan of products A and B, budgeted direct material cost, and labour cost.

| Product | Production Plan | Direct material Cost | Labour cost |
|---------|-----------------|----------------------|--------------|
| A | 25,000 litres | Rs. 1,50,000 | Rs. 1,25,000 |
| B | 40,000 units | Rs. 2,00,000 | Rs. 1,20,000 |

There are three producing departments the standard time of which to produce the products are as follows: