**(GI-1, GI-2, GI-3, GI-6, VI-1, SI-1, VDI-1)**

**DATE: 25.10.2021 MAXIMUM MARKS: 100 TIMING: 3¼ Hours**

## PAPER : COSTING

**Answer to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate who has not opted for Hindi Medium. His/her answer in Hindi will not be valued.**
**Question No. 1 is compulsory.**
**Candidates are also required to answer any Four questions from the remaining Five Questions.**
**In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.**
**Wherever necessary, suitable assumptions may be made and disclosed by way of note.**

**Question 1:**

**(a)** Following details are related to a manufacturing concern:

| | |
|---|---|
| Re-order Level | 16,000 units |
| Economic Order Quality | 90,000 |
| Minimum Stock Level | 100000 units |
| Maximum Stock Level | 190000 units |
| Average Lead Time | 6 days |
| Difference between minimum lead time and Maximum lead time | 4 days |

Calculate:
(i) Maximum consumption per day
(ii) Minimum consumption per day

**(5 Marks)**

**(b)** Human Resources Department of A Ltd. computed labour turnover by replacement method at 3% for the quarter ended June 2015. During the quarter, fresh recruitment of 40 workers was made. The number of workers at the beginning and end of the quarter was 990 and 1,010 respectively.
You are required to calculate the labour turnover rate by Separation Method and Flux Method.

**(5 Marks)**

**(c)** If the 'activity ratio' and 'capacity ratio' of a company is 104% and 96% respectively, find out its 'efficiency ratio'.

**(5 Marks)**

**(d)** KD Ltd. is following Activity based costing. Budgeted overheads, cost drivers and volume are as follows:

| Cost pool | Budgeted overheads (Rs.) | Cost driver | Budgeted volume |
|---|---|---|---|
| Material procurement | 18,42,000 | No. or orders | 1,200 |
| Material handling | 8,50,000 | No. of movement | 1,240 |
| Maintenance | 24,56,000 | Maintenance hours | 17,550 |
| Set-up | 9,12,000 | No. of set-ups | 1,450 |
| Quality control | 4,42,000 | No. of inspection | 1,820 |

The company has produced a batch of 7,600 units, its material cost was Rs. 24,62,000 and wages Rs. 4,68,500. Usage activities of the said batch are as follows:

| | |
|---|---|
| Material orders | 56 |
| Material movements | 84 |
| Maintenance hours | 1,420 hours |

| | |
|---|---|
| Set-ups | 60 |
| No. of inspections | 18 |

**Required:**

(i) CALCULATE cost driver rates.

(ii) CALCULATE the total and unit cost for the batch.

**(5 Marks)**

**Question 2:**

**(a)** BabyMoon Ltd. uses standard costing system in manufacturing one of its product 'Baby Cap'. The details are as follows:

| | |
|---|---|
| Direct Material 1 Meter @ Rs. 60 per meter | Rs. 60 |
| Direct Labour 2 hour @ Rs. 20 per hour | Rs. 40 |
| Variable overhead 2 hour @ Rs. 10 per hour | Rs. 20 |
| Total | Rs. 120 |

During the month of August, 10,000 units of 'Baby Cap' were manufactured. Details are as follows:

| | | | | |
|---|---|---|---|---|
| Direct material consumed | 11,400 meters | @ | Rs. 58 per meter | |
| Direct labour Hours | ? | @ | ? | Rs. 4,48,800 |
| Variable overhead incurred | | | | Rs. 2,24,400 |

Variable overhead efficiency variance is Rs. 4,000 A. Variable overheads are based on Direct Labour Hours.

You are required to CALCULATE the following Variances:

(a) Material Variances-
Material Cost Variance, Material Price Variance and Material Usage Variance.

(b) Variable Overheads Variances-
Variable overhead Cost Variance and Variable overhead Expenditure Variance.

(c) Labour variances-
Labour Cost Variance, Labour Rate Variance and Labour Efficiency Variance.

**(10 Marks)**

**(b)** Aditya Ltd. is engaged in heavy engineering works on the basis of job order received from industrial customers. The company has received a job order of making turbine from a power generating company. Below are some details of stores receipts and issues of copper wire, used in the manufacturing of turbine:

| | |
|---|---|
| Feb. 1 | Opening stock of 1,200 Kgs. @ Rs. 475 per kg. |
| Feb. 5 | Issued 975 kgs. to mechanical division vide material requisition no. Mec 09/13 |
| Feb. 6 | Received 3,500 kgs. @ Rs. 460 per kg vide purchase order no. 159/2013 |
| Feb. 7 | Issued 2,400 kgs. to electrical division vide material requisition no. Ele 012/13 |
| Feb. 9 | Returned to stores 475 kgs. by electrical division against material requisition no. Ele 012/13. |
| Feb. 15 | Received 1,800 kgs. @ Rs. 480 per kg. vide purchase order no. 161/ 2013 |
| Feb. 17 | Returned to supplier 140 kgs. out of quantity received vide purchase order no. 161/2013. |
| Feb. 20 | Issued 1,900 kgs. to electrical division vide material requisition no. Ele 165/ 2013 |

On 28th February, 2014 it was found that 180 kgs. of wire was fraudulently misappropriated by the stores assistant and never recovered by the company.

From the above information you are required to prepare the Stock Ledger account using 'Weighted Average' method of valuing the issues.

**(10 Marks)**

**Question 3:**

**(a)** 'Humara - Apna' bank offers three products, viz., deposits, Loans and Credit Cards. The bank has selected 4 activities for a detailed budgeting exercise, following activity based costing methods.

The bank wants to know the product wise total cost per unit for the selected activities, so that prices may be fixed accordingly.

The following information is made available to formulate the budget:

| Activity | Present Cost (Rs.) | Estimation for the budget period |
|---|---|---|
| ATM Services: | | |
| (a) Machine Maintenance<br>(b) Rents<br>(c) Currency Replenishment Cost | 4,00,000<br>2,00,000<br>1,00,000 | All fixed, no change. Fully fixed, no change.<br>Expected to double during budget period. |
| | 7,00,000 | (This activity is driven by no. of ATM transactions) |
| Computer Processing | 5,00,000 | Half this amount is fixed and no change is expected.<br>The variable portion is expected to increase to three times the current level. |
| | | (This activity is driven by the number of computer transactions) |
| Issuing Statements | 18,00,000 | Presently, 3 lakh statements are made. In the budget period, 5 lakh statements are expected.<br>For every increase of one lakh statement, one lakh rupees is the budgeted increase.<br>(This activity is driven by the number of statements) |
| Computer Inquiries | 2,00,000 | Estimated to increase by 80% during the budget period.<br>(This activity is driven by telephone minutes) |

The activity drivers and their budgeted quantifies are given below:

| Activity Drivers | Deposits | Loans | Credit Cards |
|---|---|---|---|
| No. of ATM Transactions | 1,50,000 | --- | 50,000 |
| No. of Computer Processing Transactions | 15,00,000 | 2,00,000 | 3,00,000 |
| No. of Statements to be issued | 3,50,000 | 50,000 | 1,00,000 |
| Telephone Minutes | 3,60,000 | 1,80,000 | 1,80,000 |

The bank budgets a volume of 58,600 deposit accounts, 13,000 loan accounts, and 14,000 Credit Card Accounts.

Required:

(i) CALCULATE the budgeted rate for each activity.

(ii) PREPARE the budgeted cost statement activity wise.

(iii) COMPUTE the budgeted product cost per account for each product using (i) and (ii) above.

**(10 Marks)**

**(b)** Pass journal entries in the cost books, maintained on non-integrated system, for the following:

| | |
|---|---|
| (i) Issue of materials: | Direct Rs. 5,50,000; Indirect Rs. 1,50,000 |
| (ii) Allocation of wages: | Direct Rs. 2,00,000; Indirect Rs. 40,000 |

| | |
|---|---|
| (iii) Under/Over absorbed overheads: | Factory (over) Rs. 20,000; Administration (under) Rs. 10,000 |

**(10 Marks)**

**Question 4**

**(a)** From the following Information for the month ending October, 2013, prepare Process Cost accounts for Process III. Use First-in-fist-out (FIFO) method to value equivalent production.

| | |
|---|---|
| Direct materials added in Process III (Opening WIP) | 2,000 units at Rs. 25,750 |
| Transfer from Process II | 53,000 units at Rs. 4,11,500 |
| Transferred to Process IV | 48,000 units |
| Closing stock of Process III | 5,000 units |
| Units scrapped | 2,000 units |
| Direct material added in Process III | Rs. 1,97,600 |
| Direct wages | Rs. 97,600 |
| Production Overheads | Rs. 48,800 |

Degree of completion:

| | Opening Stock | Closing Stock | Scrap |
|---|---|---|---|
| Materials | 80% | 70% | 100% |
| Labour | 60% | 50% | 70% |
| Overheads | 60% | 50% | 70% |

The normal loss in the process was 5% of production and scrap was sold at Rs. 3 per unit.

**(10 Marks)**

**(b)** A company has a P/V ratio of 40%. By what percentage must sales be increased to offset: 20% reduction in selling price?

**(10 Marks)**

**Question 5:**

**(a)** MP Ltd. produces a Product-X, which passes through three processes, I, II and III. In Process-III a by-product arises, which after further processing at a cost of Rs. 85 per unit, product Z is produced. The information related for the month of September 2020 is as follows:

| | Process-I | Process-II | Process-III |
|---|---|---|---|
| Normal loss | 5% | 10% | 5% |
| Materials introduced (7,000 units) | 1,40,000 | - | - |
| Materials added | 62,000 | 1,36,000 | 84,200 |
| Direct wages | 42,000 | 54,000 | 48,000 |
| Direct expenses | 14,000 | 16,000 | 14,000 |

Production overhead for the month is Rs. 2,88,000, which is absorbed as a percentage of direct wages.

The scraps are sold at Rs. 10 per unit

Product-Z can be sold at Rs. 135 per unit with a selling cost of Rs. 15 per unit

No. of units produced:

Process-I-6,600; Process-II-5,200, Process-III-4,800 and Product-Z-600

There is no stock at the beginning and end of the month.

You are required to PREPARE accounts for:

(i) Process-I, II and III.

(ii) By-product-Z

**(10 Marks)**

**(b)** AK Limited produces and sells a single product. Sales budget for calendar year 2013 by a quarters is as under:

| **Quarters** | **I** | **II** | **III** | **IV** |
|---|---|---|---|---|
| **No. of units to be sold** | 18,000 | 22,000 | 25,000 | 27,000 |

The year is expected to open with an inventory of 6,000 units of finished products and close with inventory of 8,000 units. Production is customarily scheduled to provide for 70% of the current quarter's sales demand plus 30% of the following quarter demand. The budgeted selling price per unit is Rs. 40. The standard cost details for one unit of the product are as follows:

Variable Cost Rs. 34.50 per unit

Fixed Overheads 2 hours 30 minutes @ Rs. 2 per hour based on a budgeted production volume of 1,10,000 direct labour hours for the year. Fixed overheads are evenly distributed through- out the year.

You are required to:

(i) Prepare Quarterly Production Budget for the year.

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

**(10 Marks)**

**Question 6**

**(a)** DESCRIBE any five factors which are to be considered before installing a system of cost accounting.

**(5 Marks)**

**(b)** Write down any five objective of Budgetary Control System.

**(5 Marks)**

**(c)** Write down assumptions of EOQ?

**(5 Marks)**

**(d)** Distinguish between product cost and period cost.

**(5 Marks)**

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