# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034 

## B.Com. DEGREE EXAMINATION - COMMERCE FOURTH SEMESTER - APRIL 2022

16/17/18UCO4MCO1 - COST ACCOUNTING

Date: 16-06-2022
Dept. No. $\square$ Max. : 100 Marks
Time: 09:00 AM - 12:00 NOON

## PART - A

Answer ALL questions:
( $10 \times 2$ = 20 Marks)
1 List out any four objectives of cost accounting.
2 Calculate EOQ from the following particulars:
Estimated requirement for the year 6000 units
Cost per unit Rs 20
Ordering Cost (Per Order) Rs 60
Carrying cost ( \% of average inventory) $10 \%$
3 Calculate Raw material consumed from the following information:
Raw material purchased - Rs.1,60,000,
Sale of Material scrap- Rs.2,000,
Opening stock of Raw materials- Rs.24,000 and
Closing stock materials- Rs.42,000.
4 Find out the amount of rent apportioned to each department: Rent: Rs. 16,000; space occupied by departments: A- 200 Sq. feet, B- 400 Sq. feet, C- 600 Sq. feet and D- 800 Sq. feet.
5 Calculate the labour turnover rate by applying: (a) separation method (b) replacement method. No. of workers on payroll: At the beginning of the month 800 and At the end of the month 1,200. During the month 20 workers left; 30 workers were discharged and 150 workers were recruited. Of these, 25 workers are recruited in the vacancies of those leaving while the rest were engaged for an expansion scheme.
6 What is abnormal loss?
7 Define Overheads.
8 What is called 'idle Time'?
9 State any four use of Activity Based Costing.
10 From the following information, Calculate kilometers and total passenger kilometers
Number of buses 5
Days operated in a month 25
Trips made by each bus 4
Distance of route $\quad 20 \mathrm{~km}$ (One way)
Capacity of Bus 50 Passengers
Normal Passengers Travelling $90 \%$ of capacity.
PART - B

## Answer any FOUR questions

11 Two components X and Y are used as follows:
Normal usage: 600 units per week each
Maximum usage: 900 units per week each
Minimum usage: 300 units per week each
Reorder quantity: X-4,800 units, Y- 7,200 units
Reorder period: X-4 to 6 weeks, Y- 2 to 4 weeks.
Calculate for each component:
(a) Reorder level
(b) Minimum Level
(c) Maximum level
(d) Average stock level.

12 Chintu, Bunty and sinu are working in a factory and paid as follows:
Normal rate per hour : Rs 6
Piece rate : Rs 5 per unit
Standard : 3 Units per Hour
In a 48 Hours week, they produced 120 units , 130 units and 125 units respectively.
Calculate the earnings of workers under:
i) Taylor's Differentials Rate System, and
ii) Gantt's task and Bonus system.

13 Compute the Machine hour rate from the following data:

|  | Rs |
| :--- | ---: |
| Cost of machine | $1,00,000$ |
| Installation charges | 10,000 |
| Estimated scrap value after the expiry of life(15 years ) | 5,000 |
| Rent and rates for the shop per month | 200 |
| General lighting for the shop per month | 300 |
| Insurance premium for the machine per annum | 960 |
| Repairs and maintenance per annum | 1000 |
| Power consumption -10 units per hour | - |
| Rate of power per 100 units | 20 |
| Estimated working hours per annum | 2200 |
| (This includes setting up time of 200 hours) | 600 |
| Shop supervisor's salary per month |  |

The machine occupies $1 / 4^{\text {th }}$ of the total area. The supervisors is expected to devote $1 / 5^{\text {th }}$ of his time for supervising the machine.
14 'A 'undertook several large contracts and his ledger contained therefore a separate account for each contract. On 31.12.2018 the account of contract number 22 showed the following amounts as expended thereon.
$\begin{array}{ll}\text { Materials directly purchased } & \text { Rs } 1,80,000 \\ \text { Materials issued from stores } & \text { Rs } 50,000 \\ \text { Wages } & \text { Rs } 2,44,000 \\ \text { Direct expenses } & \text { Rs } 24,000 \\ \text { Plant purchased } & \text { Rs } 1,60,000\end{array}$
Proportionate establishment charges Rs 54,000
The contract was for Rs $15,00,000$ and up to 31-12-2018 Rs $6,00,000$ had been received in Cash which represented $80 \%$ of work certified.
The material at site unconsumed were valued at Rs 15,000 . The contract plant was to be depreciated by Rs 16,000 .
Prepare the contract showing what profits thereon have been earned to date.
15 List the features of good wage system and explain the various method of wage payment system.
16 Pallavan Transport Corporation runs the following fleet of buses in a particular area of Chennai for 30 days in a month :25 buses of 50 passenger capacity, on an average each bus makes 10 trips a day covering a distance of 8 kms in each trip with $75 \%$ of seats occupied. Generally, $10 \%$ buses are kept from the for repairs.

|  | Rs |
| :--- | :--- |
| Monthly expenses: |  |
| Rent | 2,500 |
| Road tax | 500 |
| Salary of chief operating manager | 1,500 |
| Salary of three assistant manager | 800 each |
| Salary of four supervisors | 400 each |
| Wages of 30 cleaners | 100 each |
| Wages of 25 drivers | 240 each |
| Wages of 25 conductors | 200 each |


| Consumable stores | 4,500 |
| :--- | :--- |
| Diesel | 34,000 |
| Lubricants | 5,500 |
| Replacement of tyres | 1,750 |
| Miscellaneous expenses | 2,750 |
| Depreciation | 6,500 |
| Workshop expenses | 3,500 |

Calculate the cost per passenger km of operating the service.
17 The information given below has been taken from the costing records of an engineering works in respect of Job No:303

Materials Rs 4000
Wages :
Department A-60 Hours at Rs 3 per hour
Department B - 40 Hours at Rs 2 Per hour
Department C-20 Hours at Rs 5 per hour
Overhead of these departments were estimated as follows:

## Variable overheads :

Department A - Rs 5000 for 5000 labour hours
Department B - Rs 3000 for 1500 labour hours
Department C - Rs 2000 for 500 labour hours

## Fixed Overheads :

Estimated at Rs 20,000 for 10000 normal working hours.
You are required to calculate the cost of Job303 and calculate the price to give a profit of $25 \%$ on selling Price.

> PART - C

## Answer any TWO questions:

18 The following is the history of the receipts and issues of material in a factory, during February.
Prepare stores ledger account using FIFO and LIFO methods.

| Feb 1 | Opening stock | 500 units @ Rs 25 |
| :---: | :--- | :--- |
| 2 | Issued | 70 units |
| 4 | Issued | 100 units |
| 7 | Issued | 80 units |
| 13 | Received from supplier | 200 units @ Rs 24.50 |
| 14 | Refund of surplus from a work order | 15 units @ Rs 24 |
| 16 | Issued | 180 units |
| 22 | Received from supplier | 240 units @Rs 24.37 |
| 24 | Issued | 304 units |
| 25 | Received from supplier | 320 units @Rs 24.31 |
| 26 | Issued | 112 units |
| 27 | Refund of surplus from a work order | 12 units @Rs 24.50 |
| 28 | Received from supplier | 100 units @Rs 24 |
| 28 | Refund to supplier | 50 units |

The store verifier of the factory noted that on $15^{\text {th }} \mathrm{Feb}$, he had found a shortage of 5 units and on $27^{\text {th }}$ Feb. Another shortage of 8 units.
19 The following details have been obtained from the cost records of Bajaj Ltd.

| $₹$ |  |
| :--- | ---: |
| Stock of Raw Materials on 1 $^{\text {st }}$ Dec 2018 | 75,000 |
| Stock of Raw Materials on 31 $^{\text {st }}$ Dec 2018 | 91,500 |
| Direct wages | 52,500 |
| Indirect wages | 2,750 |
| Sales | $2,11,000$ |
| Work in progress 1 ${ }^{\text {st }}$ Dec 2018 | 28,000 |
| Work in progress 31 ${ }^{\text {st }}$ Dec 2018 | 35,000 |
| Purchase of Raw Materials | 66,000 |


| Factory rents, rates and power | 15,000 |
| :--- | ---: |
| Depreciation of plant and machinery | 3,500 |
| Expenses on purchases | 1,500 |
| Carriage outwards | 2,500 |
| Advertising | 3,500 |
| Office rent and taxes | 2,500 |
| Traveler's wages and commission | 6,500 |
| Stock of finished goods ( $1^{\text {st }}$ Dec 2018) | 54,000 |
| Stock of finished goods $\left(31^{\text {st }}\right.$ Dec 2018) | 31,000 |

Prepare a cost sheet giving the maximum possible Break-up of cost and profit
XYZ and Co., has the following balances as on 31.12.2017.

| Expenses | Production departments |  | Service departments |  |
| :---: | :---: | :---: | :---: | :---: |
|  | X | Y | P | Q |
|  | Rs | Rs | Rs | Rs |
| Indirect wages | 4000 | 3000 | 2000 | 5650 |
| Indirect materials | 1800 | 700 | 1020 | 1500 |
| Sundry expenses | 400 | 1000 | 150 | 200 |
| Supervision | - | - | 14000 | - |
| Overheads to be apportioned Total (Rs ) |  |  |  |  |
| Power |  |  |  |  |
| Rent |  |  |  |  |
| Heating |  |  |  |  |
| Taxes |  |  |  |  |
| Insurance |  |  |  |  |
| Depreciation |  |  |  |  |

Following additional information is available:

| Depts. | Area space | Boilers | Employees | Investment | HP |
| :---: | :---: | :---: | :---: | :---: | :---: |
| X | 2,000 | 45 | 20 | $6,40,000$ | 3,500 |
| Y | 800 | 90 | 10 | $2,00,000$ | 500 |
| P | 400 | 30 | 3 | 10,000 | - |
| Q | 1,600 | 60 | 5 | $1,50,000$ | 1,000 |

The expenses of Q dept are distributed in the ratio of 5:3:2 to dept X, Y and P. Expenses of P dept are distributed in the ratio of employees to production depts. prepare overhead distribution summary.

21 A product passes through three processes, A, B and C. The normal wastage if each process is as follows; Process A- 3\%; B- $5 \%$; C- $8 \%$. The wastage of process A was sold at Rs. 0.25 per unit, B at Rs. 0.50 per unit and C at Re. 1 per unit. 10,000 units were introduced in process A at a cost of Re. 1 per unit. The other expenses are:

| Process-A | Process-B | Process-C |
| :---: | :---: | :---: |
| Rs. | Rs. | Rs. |
| 1,000 | 1,500 | 500 |
| 5,000 | 8,000 | 6,500 |
| 1,050 | 1,188 | 2,009 |
| 9,500 | 9,100 | 8,100 |

Prepare the process accounts, assuming that there were not opening or closing stocks. Also give the abnormal loss and abnormal gain account, normal loss account.

