**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86**
**(For candidates admitted from the academic year 2023 – 2024)**

**B. Com DEGREE EXAMINATION, APRIL 2024**
**ACCOUNTING AND FINANCE**
**SECOND SEMESTER**

**COURSE : MAJOR CORE**
**PAPER : COST CONCEPTS AND METHODS**
**SUBJECT CODE : 23AF/MC/CC23**
**TIME : 3 HOURS MAX. MARKS: 100**

| **Q. No.** | **SECTION A (5 x 2 =10)**<br>**Answer all the questions:** | **CO** | **KL** |
|---|---|---|---|
| 1. | Write a note on Direct Material. | CO1 | K1 |
| 2. | Find out the EOQ from the following information:<br>Monthly consumption – 3,000 units<br>Cost per unit - Rs. 54<br>Ordering cost - Rs. 150 per order<br>Inventory carrying cost 20% of the average inventory | CO1 | K1 |
| 3. | Apportion the cost of power to the departments:<br>Cost of Power : Rs. 10,000<br>Kilowatt hours (KWH) of power consumed:<br>Department X : 620 KWH<br>Department Y : 380 KWH<br>Department Z : 1000 KWH | CO1 | K1 |
| 4. | Write a note on joint products. | CO1 | K1 |
| 5. | A tourist car run on a 20 km. long route for the chief executive of a multinational firm. He buys a car costing Rs.1,50,000. The car will make 4 round trips each day and that the car will be on the road for 25 days on an average per month. What will be the total km in a month? | CO1 | K1 |
| **Q. No.** | **SECTION B (4 x 5 =20)**<br>**Answer any four questions:** | **CO** | **KL** |
| 6. | Define cost accounting and write its objectives. | CO2 | K2 |
| 7. | The following data are from the costing records of Sam Industries Ltd., in respect of Job No.123:<br>Materials consumed Rs. 6,000<br>Wages:<br>Cutting Department 20 hours at Rs. 50 per hour<br>Shearing Department 10 hours at Rs. 40 per hour<br>Boring Department 5 hours at Rs. 60 per hour<br>Variable overheads for the respective departments are estimated as follows:<br>Cutting Department Rs. 40,000 for 2,000 Direct labour hours<br>Shearing Department Rs. 20,000 for 2,500 Direct labour hours<br>Boring Department Rs. 10,000 for 400 Direct Labour hours<br>Fixed overheads are estimated at Rs. 1,00,000 for 20,000 normal working hours.<br>You are required to ascertain the cost of job No. 123 and calculate the price to be charged so as to give a profit of 20% on cost. | CO2 | K2 |

**…2**

| | | | |
|---|---|---|---|
| 8. | Calculate Re-order level, Minimum Stock level, Maximum Stock level and Average Stock level from the following:<br>Normal usage 300 units per week<br>Maximum usage 450 units per week<br>Minimum usage 150 units per week<br>Re-order period 4 to 6 weeks<br>Re-order quantity 2400 units | CO2 | K2 |
| 9. | Calculate the Machine Hour Rate from the following:<br>Cost of machine: Rs. 90,000, Cost of installation: Rs. 10,000, Working life: 10 years, Working hours: 2000 per year, Repair charges: 50% of depreciation, Power: 10 units of power at 10 paise per unit, Lubricating oil: Rs. 2 per day of 8 hours, Stores: Rs. 10 per day of 8 hours, Wages of operator: Rs 4 per day of 8 hours. | CO2 | K2 |
| 10. | Prepare a process account from the following along with abnormal loss account and normal loss account. Materials issued to process 1,000 kgs at 200 each, wages Rs. 1,40,000 and overhead Rs. 20,000. Normal loss 10% of input. Actual output 800 kgs. | CO2 | K2 |
| 11. | Mr. S submits the following data and wants you to compute the cost per running Ton Km of vehicle A.<br>Cost of vehicle Rs.2,50,000<br>Road license per year Rs. 800<br>Annual supervision & salaries Rs. 2,700<br>Driver's wages per hour 4<br>Cost of fuel per litre 12<br>Repairs & Maintenance per Km 2<br>Tyres cost per Km 1<br>Insurance premium per annum Rs. 700<br>Garage Rent per year Rs.1,300<br>Kms run per litre 20<br>Kms run during the year 15,000<br>Estimated life of vehicle in Kms 1,00,000<br>Average tonnage carried 6<br>Charge interest @ 5% per annum on cost of vehicle. The vehicle runs 20 Kms per hour on an average. | CO2 | K2 |
| **Q. No.** | **SECTION C (4 x 10 =40)**<br>**Answer the questions:** | **CO** | **KL** |
| 12. a) | The accounts of a machine manufacturing company disclose the following information for the six months ending 31st December 2016.<br>Rs.<br>Materials used 1,50,000<br>Productive wages 1,20,000<br>Factory overhead 24,000<br>Establishment & General overhead 17,640<br>Prepare a cost sheet of the machine and calculate the price which the company should quote for the manufacture of a machine requiring materials valued at Rs.1250 and expenditure in Productive wages of Rs.750, so that the price may yield a profit of 20% on the selling price<br>**OR** | CO3 | K3 |

b) Show the treatment of plant in contract account from the following information:

a. Plant issued to contract on 1st January 2022 Rs. 2,00,000
b. Plant costing Rs. 10,000 was transferred to another contract on 30th June 2022.
c. A plant costing Rs. 6,000 was stolen in transit and another costing Rs. 5,000 was destroyed by fire before installation. There was fire cum burglary insurance to the full value.
d. Plant costing Rs. 2,000 was sold for Rs. 3,000
e. Plant at the end of December was valued by charging deprecation at 10% p.a.

13. a) From the following particulars prepare a statement of Labour cost showing the cost per day — CO3 — K3

(a) Monthly salary = Rs. 900
(b) Leave salary = 5 % of (a)
(c) Employer's contribution to provident fund = 8.5 % of (a) and (b)
(d) Employer's contribution to E.S.I = 3% of (a) and (b)
(e) pro rata expenditure on amenities to labour =Rs. 112 per head per month
(f) Number of working hours in a month of 25 days of 8 hours per day

**OR**

b) From the particulars given below write up the stores ledger card:

January 2023

| | | |
|---|---|---|
| 1 | Opening Stock | 1,000 units at Rs. 26 each |
| 5 | Purchased | 500 units at Rs. 24.50 each |
| 7 | Issued | 750 units |
| 10 | Purchased | 1,500 units at Rs. 24 each |
| 12 | Issued | 1,100 units |
| 15 | Purchased | 1,000 units at Rs. 25 each |
| 17 | Issued | 500 units |
| 18 | Issued | 300 units |
| 25 | Purchased | 1,500 units at Rs. 26 each |
| 29 | Issued | 1,500 units |

Adopt the FIFO Method of issue and ascertain the value of Closing Stock.

14. a) In a factory there are two service departments D and E and three production departments A, B and C. In April 2023, the department expenses were — CO4 — K4

| Departments | A | B | C | D | E |
|---|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| | 6,50,000 | 6,00,000 | 5,00,000 | 1,20,000 | 1,00,000 |

The expenses of the service departments are allotted on a percentage basis as follows:

| | A | B | C | D | E |
|---|---|---|---|---|---|
| D | 30 | 40 | 15 | - | 15 |
| E | 40 | 30 | 25 | 5 | - |

Prepare a statement showing distribution of the expenses of the two service departments on a percentage basis by repeated distribution method.

**OR**

b) In a light Factory, the following particulars have been collected for the three-monthly period ended 31.12.2023. compute the departmental overhead rate for the production departments, assuming that overheads are recovered as a percentage of direct wages.

| Particulars | Production Departments | | | Service Departments | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Direct Wages | 2,000 | 3,000 | 4,000 | 1,000 | 2,000 |
| Direct materials | 1,000 | 2,000 | 2,000 | 1,500 | 1,500 |
| Staff (Nos.), | 100 | 150 | 150 | 50 | 50 |
| Electricity (kwh) | 4,000 | 3,000 | 2,000 | 1,000 | 1,000 |
| Light Points (Rs.) | 10 | 16 | 4 | 6 | 4 |
| Assets value (Rs.) | 60,000 | 40,000 | 30,000 | 10,000 | 10,000 |
| Area occupied (Sq. Mts.) | 150 | 250 | 50 | 50 | 50 |

The expenses for the period were:

| | Rs. | | Rs. |
|---|---|---|---|
| Motive power | 550 | Amenities to staff | 1,500 |
| Lighting power | 100 | Repairs and Maintenance | 3,000 |
| Stores overhead | 400 | General Overhead | 6,000 |
| Depreciation | 15,000 | Rent and taxes | 275 |

Apportion the expenses of service department E proportionate to direct wages and that to service department D in the ratio of 5:3:2 to departments A, B and C respectively.

15. CO4 K4

a) S industries produces a product which passes through two processes I and II and then to finished stock. In each process 5% of the total weight is lost and 10% is scrap which realizes Rs. 5 per ton and Rs. 15 per ton respectively in process I and II. The following details are available.

| Particulars | Process I | Process II |
|---|---|---|
| Materials consumed in tons | 2000 | 140 |
| Cost of materials per ton in rupees | 200 | 300 |
| Wages in rupees | 20,000 | 15,000 |
| Manufacturing expenses in rupees | 6000 | 5000 |

Prepare process account.

**OR**

b) A product passes through three processes, A, B and C. From the following information prepare the process Accounts.

| | **Process A** | **Process B** | **Process C** |
|---|---|---|---|
| Materials ( in Rs) | 1,000 | 1,500 | 500 |
| Labour (in Rs) | 5,000 | 8,000 | 6,500 |
| Overheads (in Rs) | 1,050 | 1,188 | 2,009 |
| Actual Output ( in Units ) | 9,500 | 9,100 | 8,100 |
| Normal Loss | 3% | 5% | 8% |
| Scrap Value per unit | 0.25 Paise | 0.50 Paise | Re.1.00 |

Raw materials of 10,000 units were introduced into Process A in the beginning at a cost of Re.1 per unit.

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<tr><td>Q. No.</td><td>SECTION D (2 x 15 =30)<br>Answer any two questions:</td><td>CO</td><td>KL</td></tr>
<tr><td>16.</td><td>From the following particulars, calculate earnings of a worker under:<br>a. Time Rate System<br>b. Piece Wage Rate<br>c. Halsey Plan and<br>d. Rowan Plan<br>Wage Rate - Rs. 2 per hour<br>Production per hour - 4 units<br>Dearness Allowance - Re. 1 per hour<br>Standard time fixed - 80 hours<br>Actual time taken - 50 hours<br>Production - 250 units</td><td>CO5</td><td>K5</td></tr>
<tr><td>17.</td><td>Mars Ltd. has three departments P, Q and R and two service departments X and Y.<br>The following particulars are available for the month of March 2023, concerning the organisation.<br>Rent Rs. 15,000<br>Municipal taxes Rs. 5,000<br>Electricity Rs. 2,400<br>Indirect Wages Rs. 6,000<br>Power Rs. 6,000<br>Depreciation on machinery Rs. 40,000<br>Canteen expenses Rs. 30,000<br>Other labour related cost Rs. 10,000<br>The following further details are also available:<br><table><tr><td rowspan="2">Particulars</td><td colspan="3">Production Departments</td><td colspan="2">Service Departments</td></tr><tr><td>P</td><td>Q</td><td>R</td><td>X</td><td>Y</td></tr><tr><td>Floor Space (Sq. mts)</td><td>1,000</td><td>1,250</td><td>1,500</td><td>1,000</td><td>250</td></tr><tr><td>Light points</td><td>40</td><td>60</td><td>80</td><td>40</td><td>20</td></tr><tr><td>Direct wages (Rs.)</td><td>12,000</td><td>8,000</td><td>12,000</td><td>6,000</td><td>2,000</td></tr><tr><td>Horse Power of Machines</td><td>60</td><td>30</td><td>50</td><td>10</td><td>-</td></tr><tr><td>Cost of Machines (Rs.)</td><td>48,000</td><td>64,000</td><td>80,000</td><td>4,000</td><td>4,000</td></tr></table><br>The expenses of service departments are to be allocated in the following manner:<br><table><tr><td></td><td>P</td><td>Q</td><td>R</td><td>X</td><td>Y</td></tr><tr><td>X</td><td>20%</td><td>30%</td><td>40%</td><td>-</td><td>10%</td></tr><tr><td>Y</td><td>40%</td><td>20%</td><td>30%</td><td>10%</td><td>-</td></tr></table><br>You are asked to calculate the total overhead of the three production departments.</td><td>CO5</td><td>K5</td></tr>
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<td>18.</td>
<td>The following details are available in respect of Processes ‘A’ and ‘B’ for September 2023:
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<tr><th></th><th>Process A<br>Rs.</th><th>Process B<br>Rs.</th></tr>
<tr><td>Materials consumed</td><td>50,000</td><td>10,000</td></tr>
<tr><td>Wages</td><td>20,000</td><td>30,000</td></tr>
<tr><td>Overhead</td><td>10,000</td><td>10,000</td></tr>
</table>
Process ‘A’ transfers its output to Process ‘B’ at a profit of 20% on transfer price and Process ‘B’ transfers its product to finished stock at 20% on cost. The finished goods are sold for Rs. 2,00,000. Prepare the Process accounts, finished stock account and Profit & Loss account showing total profit for the monthly assuming the sundry expenses were Rs. 20,000 which were not apportioned to the processes</td>
<td>CO5</td>
<td>K5</td>
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