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| **col LOGO outline**DATE: **10** **-04-2018 (9 AM)**Registered number:DATE: **13** **-04-2018 (1 PM)****ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27** |
| **B.COM - IV SEMESTER** |
| **SEMESTER EXAMINATION: APRIL 2018** |
| **BC 4115 – Cost Accounting**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time- 2 1/2 hrs** |  |  **Max Marks-70** |  |
|  |  |  |  |  |  |  |
| **This paper contains 5 printed pages and four parts** |

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(For supplementary candidates)

Do not write the register number on the question paper

Please attach the question paper along with the answer script.

**Section – A**

**Answer any five from the following questions 5x2=10**

1. What is the difference between Direct and Indirect materials? Give two examples of each.
2. Compute EOQ from the following:

Quarterly consumption of material – 2,000 kgs

Cost per unit of material – Rs. 40

Buying cost per order – Rs. 50

Storage & Carrying cost of inventory – 8% of average inventory.

1. State two points of distinction between time rate and piece rate system.
2. What is meant by Machine hour rate? How is it calculated?
3. Why is reconciliation necessary between profit as per financial accounting and cost accounting?
4. State any four items which are included in financial accounts but not in cost accounts.
5. What is ABC analysis?

**Section – B**

**Answer any three from the following questions 3x5=15**

1. Calculate factory cost from the following particulars

|  |
| --- |
| **Particulars Rs.** |
| Material consumed 60,000 |
| Productive wages 20,000 |
| Direct Expenses 5,000 |
| Consumable stores 2,000 |
| Oil grease/Lubricating 500 |
| Salary of a factory manager 6,000 |
| Unproductive wages 1,000 |
| Factory rent 2,000 |
| Repair and Depreciation on Machine 600 |
| Bad debts written off 1,500 |

1. Compute the Re-order level, Re-order quantity and Average stock level.

|  |  |
| --- | --- |
| Normal usage | 100 units per day |
| Minimum usage | 60 units per day |
| Maximum usage | 130 units per day |
| Minimum level | 1,400 units |
| Maximum level | 7,800 units |
| Re-order period | 20 to 30 days |

1. Using a Taylor’s plan, calculate the earnings of workers from the following information. Normal rate per hour = Rs. 12.

Standard time per piece = 20 minutes

In a 9 – hour day, A produces 26 units and B produces 30 units.

1. AVS Ltd., made a Net Profit of Rs. 5,71,000 during the year 2003 as per the their financial system. Whereas their cost accounts disclosed a profit of Rs. 7,77,200. On reconciliation, the following differences were noticed :
2. Director’s fees charged in financial account, but not in cost account Rs. 13,000.
3. Bank interest credited in financial account, but not in cost account Rs. 600.
4. Income Tax charged in financial account, but not in cost account Rs. 1,66,000.
5. Bad and doubtful debts written off Rs. 11,400 in financial accounts.
6. Overheads charged in costing books Rs. 1,70,000 but actual were Rs. 1,66,400.
7. Loss on sale of old machinery Rs.20,000 charged in financial accounts.
8. The depreciation method followed in financial accounting was straight line method which reported a depreciation of Rs. 300 whereas the depreciation method under cost accounting was machine hour rate which also showed a depreciation of Rs. 300.
9. What do you understand by classification, allocation and apportionment in relation to overhead expenses? How is this achieved?

**Section C**

**Answer any three from the following questions 3x10=30**

1. Explain in detail various classification of costs.
2. Following is a history of the receipts and issues of materials in a factory during Jan 2017:

|  |  |  |
| --- | --- | --- |
| Jan 1 | Opening balance | 500 quintals @ Rs.25 |
| 3 | Issue | 70 quintals |
| 4 | Issue | 100 quintals |
| 8  | Issue | 80 quintals |
| 13 | Received from vendor | 200 quintals @ Rs. 24.50 |
| 14  | Refund of surplus from a work order | 15 quintals @Rs. 24 |
| 16  | Issue | 180 quintals  |
| 20  | Received from vendor | 240 quintals @ Rs. 24.375 |
| 24 | Issue | 304 quintals |
| 25 | Received from vendor | 320 quintals @ Rs. 34.315 |
| 26 | Issue | 112 quintals |
| 27 | Refund of surplus from work order  | 12 quintals @Rs. 24.50 |
| 28 | Received from vendor | 100 quintals @ Rs. 25 |

Issues are to be priced under the principle of “First-in-first-out”. The stock verifier of the factory noted that on 15th there was a shortage of 5 quintals and on 27th another shortage of 8 quintals. Prepare stores ledger account.

1. The existing incentive scheme of a factory is:

|  |  |
| --- | --- |
| Normal working week | 5 days of 9 hours plus 3 late shifts of 3 hours each |
| Rate of payment | Days work = Re. 1 per hourLate shift = Rs. 1.50 per hour |
| Additional bonus payable | Rs. 2.50 per day shiftRs. 1.50 per late shift |

Average output per operative for

54 hour week i.e including 3 late shifts is 120 articles.

In order to increase output and eliminate overtime it was decided to switch on to a system of payment by results. The following information is obtained:

|  |  |
| --- | --- |
| Time rate (as usual) | Re. 1 per hour |
| Basic time allowed for 15 articles | 5 hours |
| Piece work rate | Add 20% to piece |
| Premium | Add 50% to time |

You are required to show i) hours worked, ii) weekly earnings, iii) number of articles produced, iv) labor cost per article for one operative under the following systems:

1. Existing time rate
2. Straight piece work
3. Rowan system
4. Halsey system.

Assume that 135 articles produced in a 45 hour week under b), c) and d). The additional bonus under the existing system will be discontinued in the proposed incentive scheme.

1. A machine is purchased for cash at Rs. 9,200. Its working life is estimated to be Rs. 18,000 hours after which its scrap value is estimated at Rs. 200. It is assumed from past experiences that:
2. The machine will work for 1,800 hours annually.
3. The repair charges will be Rs. 1,080 during the whole period of life of the machine.
4. The power consumption will be 5 units per hour at 6 paise per unit.
5. Other annual standing charges are estimated to be;
* Rent of department (machine occupies 1/5th of total space) Rs. 780
* Light (12 points in the department – 2 points engaged in the machine) Rs. 288
* Foreman’s salary (1/4th of his time is occupied in the machine) Rs. 6,000
* Insurance premium (fire) for machinery Rs. 36
* Cotton waste Rs. 60.

Find out the machine hour rate on the basis of above data for allocation of the works expenses to all jobs for which the machine is used.

1. The profit & loss account of Oil India Pvt ltd for the year ended 31st March, 2016 is as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| To materials | 4,80,000 | By sales | 9,60,000 |
| To wages | 3,60,000 | By Work in progressMaterials - 30,000Wages - 18,000Direct expenses – 12,000 | 60,000 |
| To direct expenses | 2,40,000 | Closing stock | 1,80,000 |
| To Gross profit | 1,20,000 |  |  |
|  | **12,00,000** |  | **12,00,000** |
| To administration expenses | 60,000 | By Gross profit | 1,20,000 |
| Net Profit | 66,000 | By Dividends received | 6,000 |
|  | **1,26,000** |  | **1,26,000** |

As per the cost records the direct expenses have been estimated at a cost of Rs. 30 per kg and administration expenses at Rs. 15 per kg. During the year production was 6,000 kgs and sales were 4,800 kgs.

Prepare a statement of costing profit and loss account and reconcile the costing profit with financial profit.

**Section D**

**Compulsory question 1x15=15**

1. ABC Ltd, has three production departments P1, P2 and P3 and two service departments S1 and S2. The following data are extracted from the records of the company for the month of October, 2016:

|  |  |  |  |
| --- | --- | --- | --- |
| Rent & rates | 62,500 | Power | 25,000 |
| General lighting |  7,500 | Depreciation on Machinery | 50,000 |
| Indirect wages | 18,750 | Insurance of machinery | 20,000 |

Other information:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | P1 | P2 | P3 | S1 | S2 |
| Direct wages (Rs) | 37,500 | 25,000 | 37,500 | 18,750 | 6,250 |
| HP of machines used | 60 | 30 | 50 | 10 | - |
| Cost of machinery (Rs) | 3,00,000 | 4,00,000 | 5,00,000 | 25,000 | 25,000 |
| Floor space (Sq. ft) | 2,000 | 2,500 | 3,000 | 2,000 | 500 |
| Number of light points | 10 | 15 | 20 | 10 | 5 |
| Production hours worked | 6,225 | 4,050 | 4,100 | - | - |

Expenses of the service departments S1 and S2 are reapportioned as below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | P1 | P2 | P3 | S1 | S2 |
| S1 | 20% | 30% | 40% | - | 10% |
| S2 | 40% | 20% | 30% | 10% | - |

Required:

1. Show primary distribution and secondary distribution summary (Simultaneous equation method).
2. Compute overhead absorption rate per production hour of each production department.