

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2011 – 2012)

SUBJECT CODE: 11CM/PC/CC14

M.Com. DEGREE EXAMINATION NOVEMBER 2011
COMMERCE
FIRST SEMESTER

COURSE : CORE
PAPER : COST DETERMINATION AND COST CONTROL
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

I. Answer ALL

(10 x 2 = 20)

1. What is perpetual inventory system?
2. Explain EOQ.
3. Distinguish between joint product and by-product.
4. Differentiate between job costing and process costing.
5. Cost per unit decreases as volume increases-Explain
6. Calculate the ton kilometers run by a truck from the following details.
Distance traveled 200 kms per day.
Normal loading capacity 100 tons.
Wastage in loading 10%.
Percentage of vehicles under repair 5%.
Effective days in a month 25.
7. How much of profit would you allow to be considered in the following case?
Rs.
Cost incurred so far for contract : 2,80,000
Contract price : 5,00,000
Cash received : 2,70,000
Uncertified work : 30,000
8. A manufacturing company introduces 100 units at a cost of Rs. 9,600/-. It incurs a further expense of Rs. 4,800 in the process. A normal wastage of 5% of input is estimated which will fetch Rs. 10 per unit as a scrap value. The output of the process was 90 units. Find the value of abnormal wastage.
9. Find out the value of closing stock under LIFO.
Purchase of Material on 1-6-09 2000 units @ Rs 20 per unit.
Purchase of Material on 8-6-09 1200 units @ Rs 22 per unit
Issue on 10-6-09 : 1800 units
10. A Company buys its annual requirement of 36000 units in 6 instalments. Each Unit costs Re. 1/- and ordering cost is Rs. 25/-. The inventory carrying cost is estimated at 20% of unit value. Find EOQ

II. Answer any FIVE Questions

(5 x 8 = 40)

11. The budgeted overheads and costs driver volumes of XYZ Ltd. are as follows:

| Cost pool | Budgeted Overhead(Rs.) | Cost driver | Budgeted volume |
|----------------------|------------------------|-----------------------|-----------------|
| Material Procurement | 5,80,000 | No. of Orders | 1,100 |
| Material handling | 2,50,000 | No. of movements | 680 |
| Set- up | 4,15,000 | No. of set –ups | 520 |
| Maintenance | 9,70,000 | Maintenance Hours | 8,400 |
| Quality Control | 1,76,000 | No of Inspection | 900 |
| Machinery | 7,20,000 | No of Machinery Hours | 24,000 |

The company has produced a batch of 2600 components of AX-15 , its material cost was Rs. 1,30,000 and Labour cost was Rs. 2,45,000. The usage activities of the set batch are as follows

| | |
|-------------------------|-------------------------|
| Material Orders - 26 | Maintenance Hours - 690 |
| Material Movements – 18 | Inspection- 28 |
| Set- Ups - 25 | Machine Hours – 1,800 |

Required:

- a. Calculate Cost Driver rates that are used for tracing appropriate amount of Over heads to the said batch.
- b. Ascertain the batch of components using ABC.

12. You are given the data relating to a passenger company, Suraj Travels for January.

Calculate the cost per passenger kilometre.

Staff salary Rs. 26,400; Diesel Oil Rs. 3,000; Insurance Premium Rs. 3,900; Lubricating oil Rs. 200; Depreciation Rs. 5,500; Spares Rs. 300; Tyres and Tubes Rs. 700. The Company runs two buses and each of them can accommodate 50 Passengers. The bus run between two cities and the distance between them 150 kms. The number of days on which the buses had run during the month are 30 and each bus made one round trip daily. On the average, the seating capacity utilized was 80%.

13. In a factory, there are two service departments S1 and S2 and three production departments P1, P2, and P3. In April 1998, the departmental expenses were:

| Departments | P1 | P2 | P3 | S1 | S2 |
|-------------|----------|----------|----------|----------|----------|
| Rs. | 6,50,000 | 6,00,000 | 5,00,000 | 1,20,000 | 1,00,000 |

The service department expenses are allotted on a percentage basis as follows:

| Service Departments | Production Deptts. | | | Service Deptts. | |
|---------------------|--------------------|----|----|-----------------|----|
| | P1 | P2 | P3 | S1 | S2 |
| S1 | 30 | 40 | 15 | -- | 15 |
| S2 | 40 | 30 | 25 | 5 | -- |

Prepare a statement showing the distribution of the two service department expenses to the three departments by Simultaneous Equation Method.

14. A company manufactures three joint products A,B and C. The actual joint-expenses Rs. 8,000. Profit on each product as a percentage of sales would be 30%, 25% and 15% respectively. Subsequent expenses were as follows:

| | A | B | C |
|-----------|-------|-------|-------|
| | Rs. | Rs. | Rs. |
| Materials | 100 | 75 | 25 |
| Labour | 200 | 125 | 50 |
| Overheads | 150 | 125 | 75 |
| Sales | 6,000 | 4,000 | 2,500 |

Prepare a statement apportioning joint expenses on the basis of reverse cost method.

15. Ace Ltd. manufactures a product and the following particulars are collected for the year ended March, 2000.

| | |
|------------------------------------|-------|
| Monthly demand(units) | 1,000 |
| Cost of placing an order(Rs.) | 100 |
| Annual carrying cost(Rs. per unit) | 15 |
| Normal usage(units per week) | 50 |
| Minimum usage(units per week) | 25 |
| Maximum usage(units per week) | 75 |
| Re-order period(weeks) | 4-6 |

You are required to calculate (i) Re-order quantity, (ii) Re-order level, (iii) Minimum level, (iv) Maximum level, (v) Average stock level.

16. 10,000 units of raw materials are introduced into a process at cost of Rs. 20,000. Wages and overheads for the process are Rs. 5,100 and Rs. 3,400 respectively. 7,500 units were completed; of the remaining 2,500 units on the average 40% work has been done in respect of labour and overheads. Ascertain the cost of completed units and work-in-progress at the end.

17. From the following particulars you are required to prepare a statement showing the (a) Cost of materials consumed, (b) Prime Cost, (c) Works Cost, (d) Total Cost, (e) Percentage of works overheads to productive wages and (f) Percentage of general overheads to works cost:

| | Rs. | | Rs. |
|-------------------------------------|-----------|---------------------------------------|----------|
| Stock of Finished Goods on 1-1-2008 | 72,800 | Productive wages | 5,16,880 |
| Stock of Raw Materials on 1-1-2008 | 33,280 | Stock of Finished Goods on 31-12-2008 | 78,000 |
| Purchase of Raw Materials | 7,59,200 | Stock of Raw Materials on 31-12-2008 | 35,360 |
| Sale of Finished Goods | 15,39,200 | Works Overhead Charges | 1,29,220 |
| | | Office & General Expenses | 70,161 |

The Company is about to send a tender for a large plant. The Costing Department estimated that the materials required would cost Rs. 52,000 and the wages to workmen for making the plant would cost Rs. 31,200. The tender is to be made at a net profit of 20% on the selling price. Show what the amount of tender would be if based on the above percentages.

18. 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 its 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 expenses per annum | 1,000 |
| Power consumption-10 units per hour | --- |
| Rate of power per 100 units | 20 |
| Estimated working hours per annum – 2,200 | |
| This includes setting up time of 200 hours | --- |
| Shop supervisor's salary per month | 600 |

The machine occupies 1/4th of the total area of the shop. The supervisor is to devote 1/5th of his time for supervising the machine.

SECTION C

III. Answer any TWO Questions:

(2 x 20 = 40)

19. Union Transport Company supplies the following details in respect of a truck of 5 tonne capacity :

| | |
|-----------------------------|---------------------------|
| Cost of truck | Rs. 4,50,000 |
| Estimated life | 10 years |
| Diesel, oil, greese | Rs. 150 per trip each way |
| Repairs and Maintenance | 5,000 per month |
| Drivers' wages | 5,000 per month |
| Cleaners' wages | 2,500 per month |
| Insurance | 4,800 per year |
| Tax | 2,400 per year |
| General supervision charges | 4,800 per year |

The truck carries goods to and from the city covering a distance of 50 km. each way

In outward trip, freight is available to the extent of full capacity and on return 20% of capacity. Assuming that the truck runs on an average of 25 days a month, work out:

(a) Operating cost per tonne-km,

(b) Rate per tonne per trip that the company should charges if a profit of 50% on freight is to be earned.

20. The following balances were extracted from the books of a building contract on 31st March 2009 regarding Contract No. 123.

| | Rs. |
|--------------------------------|--------|
| Materials issued to site | 62,720 |
| Wages paid | 73,455 |
| Wages outstanding on 31.3.2009 | 720 |
| Plant issued to site | 6,000 |

| | |
|---|----------|
| Direct charges paid | 2,515 |
| Direct charges outstanding on 31.3.2009 | 210 |
| Establishment charges | 5,650 |
| Stock materials at site on 31.3.2009 | 1,200 |
| Value of work certified on 31.3.2009 | 1,65,000 |
| Cost of work not yet certified | 3,500 |
| Cash received | 1,41,075 |

The work was commenced on April 1, 2008 and the contract price agreed at Rs. 2,45,000. Prepare contract account for the year providing for depreciation of plant at 25%. Calculate the profit or loss in the contract to date and make such provision in the contract account as you consider desirable. Set out also Contractors Balance Sheet so far as it relates to the contract account.

21. A Product is manufactured by passing through three processes A, B and C. For The first week in January, the actual data included. The following information is obtained from the accounts for the month ending March, 2005:

| Items | Process | | |
|------------------------------------|----------|----------|----------|
| | A Rs. | B Rs. | C Rs. |
| Direct material (6000 units)- Rs. | 12,000 | - | - |
| Direct materials added (Rs.) | 5,000 | 9,000 | 4,000 |
| Direct wages (Rs.) | 4,000 | 6,000 | 2,000 |
| Direct expenses (Rs.) | 800 | 1,680 | 2,260 |
| % of Normal Loss to input | 5% | 10% | 5% |
| Output (in units) during the month | 5,760 | 5,100 | 4,880 |
| Value of scrap per unit(Rs.) | 1.5 | 2 | 4 |

You are required to prepare

- (1) Accounts for processes A, B, and C.
 - (2) Abnormal loss and abnormal gain accounts.
22. Prepare a statement showing the pricing of issues, on the basis of
- (a) Simple Average, and
 - (b) Weighted Average Methods from the following information pertaining to material 'X'.

Date

| | | |
|----------|----|--|
| Sep 2010 | 1 | Purchased 100 units @ Rs. 10.00 each. |
| | 2 | Purchased 200 units @ Rs. 10.20 each. |
| | 5 | Issued 250 units to Job A vide MR No. 1. |
| | 7 | Purchased 300 units @ Rs. 10.50 each. |
| | 10 | Purchased 200 units @ Rs. 10.80 each. |
| | 13 | Issued 200 units to Job B vide MR No. 2. |
| | 18 | Issued 200 units to Job C vide MR No. 3. |
| | 20 | Purchased 200 units @ Rs. 11.00 each. |
| | 25 | Issued 150 units to Job D vide MR No. 4. |
