CMA		CA R. K. Mehta
Test - 18		
Time Allowed : 3 hours		**Total Marks: 100 Marks**

Note: Question no. 1 is compulsory. Attempt any four out of remaining five questions.

Q.1 (a): Calculate the material turnover ratio for the year 2016 from the following information and determine which of the two materials is most fast moving.

Material	Material in hand on 1-1-2016	Material in hand On 31-12-2016	Material purchased during the year
X	25,000	15,000	1,90,000
Y	87,500	62,500	1,25,000

Total 360 days to be considered in one year.

(5 Marks)

(b): Standard time for a job is 50 hours and guaranteed hourly time wage is ₹ 15. The worker Garry receives an effective hourly rate of ₹ 20 under Rowan Premium Plan due to efficiency in performance. Another worker Larry has performed the similar job in the same time but he gets wages according to Halsey premium Plan. **Ascertain** total wages for Larry and his effective hourly rate.

(5 Marks)

(c): The following information has been made available from the records of a company for last six months of 2006 (and the sales of January 2007) in respect of product X. The units to be sold in different months are: -

July' 06	Aug.' 06	Sept.' 06	Oct.' 06	Nov.' 06	Dec.' 06	Jan.' 07
1,100	1,100	1,700	1,900	2,500	2,300	2,000

Finished units equal to half the sales of the next month will be in stock at the end of every month (including June 2006). Budgeted production and production cost for the year ending 31st Dec., 2006 are thus: -

Production (units) - 22,000	Direct wages per unit - ₹ 4
Direct materials per unit - ₹ 10	Total factory overhead apportioned to production - ₹ 88,000

You are **required** to prepare: - **(a)** Production budget for the six months of 2006, **(b)** Summarized production cost budget for the same period.

(5 Marks)

(d): The accounts of a radio manufacturing company disclosed the following information for the year ending 31st December:

Materials used- ₹ 50,000	Works overhead expenses - ₹ 8,000
Productive wages - ₹ 40,000	Office overhead expenses - ₹ 4,900

Prepare cost sheet for the year ending 31st December and also calculate the price which the company should quote for the manufacture of a radio in early next year requiring materials valued at ₹ 250 and wags of ₹ 150, so that the price may yield a profit of 20% on the cost. The factory overheads are absorbed on direct wages and office overheads are absorbed on works cost.

(5 Marks)

Q.2 (a): The data is available in the financial accounts of a manufacturing company for the year ending 31-03-2018:

Particulars	Particulars
Direct material consumption - ₹ 3,55,000	Donation and charity - ₹ 20,000
Direct wages - ₹ 3,60,000	Preliminary expenses (written off) - ₹ 20,000
Manufacturing expenses - ₹ 2,45,000	Provision for income tax - ₹ 75,000
Production related admn. expenses - ₹ 2,40,000	Interest received on deposits - ₹ 25,000
Selling & distribution expenses - ₹ 2,00,000	Sales (1,80,000 units) - ₹ 16,20,000
Interest on debentures - ₹ 48,000	Closing stock of finished goods (30,000 units) - ₹ 1,50,000

The cost accounts reveals:-

(a) Manufacturing overheads recovered at 80% on direct wages.

(b) Office and administrative overheads at 25% on factory cost.

(c) Selling and distribution overheads at ₹ 1 per unit.

(d) Closing stock of finished goods valued at cost of production.

You are **required** to:-

1. Prepare Profit and Loss Account showing net profit in financial accounts.

2. Prepare a statement showing profit in the cost accounts.

Prepare a statement reconciling the profits disclosed as per above (1) and (2).

(10 Marks)

(b) : EPS is a Public School having 25 buses each plying in different directions for the transport of its school students. In view of large number of students availing of the bus service, the buses work two shifts daily both in the morning and in the afternoon. The buses are garaged in the school. The workload of the students has been so arranged that in the morning, the first trip picks up senior students and the second trip plying an hour later picks up junior students.

Similarly, in the afternoon, the first trip takes the junior students and an hour later the second trip takes the senior students home. The distance travelled by each bus, one way is 16 kilometers. The school works 24 days in a month and remains closed for vacation in May and June the bus fee, however, is payable by the students for all the 12 months in a year. The **details of expenses** for the year 2003 - 2004 are under**:**

Driver's salary payable for all the 12 months - ₹ 5,000 per month per driver	
Cleaner's salary payable for all the 12 months - ₹ 3,000 per month per cleaner (one cleaner has been employed for every five buses)	
License Fees, Taxes etc. - ₹ 2,300 per bus per annum	Life of the bus - 16 years
Insurance Premium - ₹ 15,600 per bus per annum	Scrap value -₹ 1,50,000
Purchase price of the bus - ₹ 16,50,000 each	Diesel Cost - ₹ 18.50 per litre
Repairs and Maintenance - ₹ 16,400 per bus per annum	

Each bus gives an average of 10 kilometers per litre of diesel. The seating capacity of each bus is 60 students. The seating capacity is fully occupied during the whole year. The school follows differential bus fees based on distance travelled as under:

Students picked up and dropped within the range of distance from the School	Bus Fee	Percentage of Students availing this facility
4 kilometers	25% of full	15%
8 kilometers	50% of full	30%
16 kilometers	Full	55%

Ignore interest. Since the bus fee has to be based on average cost, you are required to:

(i) Prepare a statement showing the expenses of operating a single bus & the fleet of 25 buses for a year.

(ii) Work out average cost per student per month in respect of :-

(a) Students cost per student per month in respect of,

(b) Students coming from a distance of upto 8 kilometers from the school,

(c) Students coming from a distance of upto 16 kilometers from the school,

(10 Marks)

Q.3 (a): ABC Limited has furnished its profit and loss account of the year ended 31st March, and also given a statement showing reconciliation between the profits as per financial records and cost records.

Profit and loss account for the year ended 31st March

Particulars	Amount (₹)	Particulars	Amount (₹)
To Opening stock - Raw materials	95,500	By Sales	17,80,000
- WIP	45,000	By Closing stock - Raw Materials	99,000
- Finished goods	78,000	- WIP	58,000
To Purchases	6,42,000	- Finished Goods	80,000
To Direct Wages	2,22,000	By Dividend Received on Shares	1,65,000
To Factory Overheads	2,45,000		
To Administrative Expenses	1,98,500		
To Selling Expenses	3,42,000		
To Goodwill Written off	80,000		
To Interest on Loans	50,000		
To Legal Charges	42,000		
To Net Profit	1,42,000		
Total	**21,82,000**	**Total**	**21,82,000**

Reconciliation statement as at 31st March is given below:

Particulars		Amount (₹)
Profit as per Financial Records		1,42,000
Add: Raw material - Closing Stock under-valued	1,500	
WIP - Opening stock over-valued	2,000	
Finished Goods - Opening Stock over-valued	3,000	
Finished Goods Closing Stock under-valued	1,000	
Goodwill Written off	80,000	
Interest on Loans	50,000	
Legal Charges	42,000	1,79,500
Less: Raw material - Opening stock under-valued	2,500	
WIP - Closing Stock over-valued	3,500	
Dividend Received on Shares	1,65,000	(1,71,000)
Profit as per Cost Records		**1,50,500**

You are required to draw up the following accounts in the cost ledger of ABC Pvt. Ltd –

1. Material Control Account **2.** WIP Control Account

3. Finished Goods Control Account **4.** Cost of Sales Account **5.** Costing Profit and Loss Account

(10 Marks)

(b): A contractor commenced a contract on 1-7-2011. The costing records concerning the said contract reveal the following information as on 31-3-2012:

Particulars	**Amount of (₹)**
Material sent site	7,74,300
Labour paid	10,79,000
Labour outstanding as on 31-3-2012	1,02,500
Salary to engineer	20,500 permonth
Cost of plant sent to site (1-7-2011)	7,71,000
Salary to supervisor (¾ time devoted to contract)	9,000 per month
Administration & other expenses	4,60,600
Prepaid administration expenses	10,000
Material in hand at site as on 31-3-2012	75,800

Plant used for the contract has an estimated life of 7 years with residual value at the end of life ₹50,000. Some of material costing ₹13,500 was found unsuitable and sold for ₹10,000. Contract price was ₹5,00,000. On 31-3-2013 two third of the contract was completed. The architect issued certificate covering 50% of contract price and contractor has been paid ₹20,00,000 on account. Depreciation on plant is charged on straight line basis. **Prepare** Contract Account.

(10 Marks)

Q.4 (a): X Ltd. manufacturing three products, has the following direct labour requirements for the products: -

Direct Labour time per unit (in minutes)

Product	**1**	**2**	**3**
Operation I	18	42	30
Operation II	---	12	24
Operation III	9	6	---

The factory works 8 hours per day, 6 days in a week. Each budget quarter has 13 weeks and in terms of leave, holidays and other causes, 124 hours are lost in each quarter. Operations I, II and III have the budgeted hourly rates for workers at ₹ 16, ₹ 20 & ₹ 24 respectively. The budgeted sales of the products during the quarter are: - Product 1: 9,000 units, Product 2: 15,000 units, Product 3: 12,000 units

There were opening stocks of 5,000 units of Product 2 and 4,000 units of Product 3 and it is proposed to have closing stock at the end of the budget quarter as follows: -

Product 1: 1,000 units, Product 3: 2,000 units.

Required: - 1. Production Budget **2.** Direct Labour Hours Budget

3. Available Labour Hours per worker per quarter

4. Number of workers required **5.** Direct Labour Cost Budget

10 Marks)

(b):

Materials - ₹ 16 per unit	Fixed Cost - ₹ 5 lakhs
Conversion costs (variable) - ₹ 12 per unit	Present sales - 90,000 units
Dealer's margin (10% of selling price) - ₹ 4 per unit	Capacity utilization - 60%
Selling Price - ₹ 40 per unit	

There is acute competition. Extra efforts are necessary to sell. Suggestions have been made for increasing sales: -

(a) By reducing selling price by 5%. **(b)** By increasing dealer's margin by 25% over the existing rate.

Compute units to be sold in both the suggestions if the company desires to maintain the present profit? Give reasons.

(10 Marks)

Q.5 (a): Following details are related to the work done in Process A of XYZ company during the month of March: -

Opening WIP 2,000 units Cost incurred:- Material ₹ 80,000 - Labour ₹ 15,000 - Overheads ₹ 45,000	Closing WIP 2,000 units, Degree of completion was material 100%, labour and overhead 80%
	Units scrapped 3,000 units, Degree of completion was material 100%, labour and overhead 80%
Material introduced in Process A 38,000 units at ₹ 14,80,000	Other cost in Process A: - Direct labour ₹ 3,59,000 and Overheads ₹ 10,77,000
Scrapped units fetch ₹ 20 per piece	Normal loss 5% of total input including opening WIP
	Units finished and transferred to Process B 35,000 units

Prepare: - **(a)** Statement of equivalent production **(b)** Statement of cost
(c) Statement of Distribution of cost
(d) Process A Account, Normal and Abnormal Loss Accounts

(10 Marks)

(b) The following account balances and distribution of indirect charges are taken from the accounts of a manufacturing concern for the year ending on 31st March, 2014: -

Item	Total Amount	Production Departments			Service Department	
		X	Y	Z	A	B
Indirect materials	1,25,000	20,000	30,000	45,000	25,000	5,000
Indirect labour	2,60,000	45,000	50,000	70,000	60,000	35,000
Superintendents' salary	96,000	---	---	96,000	---	---
Fuel and heat	15,000	---	---	---	---	---
Power	1,80,000	---	---	---	---	---
Rent and rates	1,50,000	---	---	---	---	---
Insurance	18,000	---	---	---	---	---
Meal charges	60,000	---	---	---	---	---
Depreciation	2,70,000	---	---	---	---	---

The following **department's data** are also available: -

Item	Production Departments			Service Department	
	X	Y	Z	A	B
Area (sq. ft.)	4,400	4,000	3,000	2,400	1,200
Capital value of assets (₹)	4,00,000	6,00,000	5,00,000	1,00,000	2,00,000
Kilowatts hours	3,500	4,000	3,000	1,500	---
Radiators sections	20	40	60	50	30
No. of employees	60	70	120	30	20

Expenses charged to the Service Departments are to be distributed to other departments as below: -

Departments	X	Y	Z	A	B
A	30%	30%	20%	---	20%
B	25%	40%	25%	10%	---

Prepare an overhead distribution statement to show the total overheads of production departments after re-apportioning service department's overheads by using simultaneously equation method. **Show** all the calculations to the nearest rupee.

(10 Marks)

Q.6

a) Job Costing v/s Process Costing. (5Marks)
b) Traditional Method v/s Activity Based Costing. (5 Marks)
c) Centralized and Decentralized Purchasing of Raw Material. (5 Marks)
d) Benefits of Study of Marginal Costing. (5 Marks)