Test Series: May, 2020

MOCK TEST PAPER – 1

FINAL COURSE: GROUP – II

PAPER – 5: ADVANCED MANAGEMENT ACCOUNTING

*Question No. **1** is compulsory*
*Answer any **five** questions from the remaining **six** questions*

Time Allowed – 3 Hours **Maximum Marks – 100**

1. (a) A company is producing two types of products Q and R simultaneously from input of raw material Z. Presently the company is producing 45,000 kgs of Q and 90,000 kgs of R from input of 1,35,000 kgs of raw material Z. The selling price of Q is Rs. 15 and that of R is Rs. 12 per unit. Processing cost per month is as follows:

	Rs.
Raw Material (1,35,000 kgs @ Rs. 6 per Kg)	8,10,000
Variable Processing Cost	5,40,000
Fixed Processing Cost	3,50,000
Total	17,00,000

A company has given an offer of purchase of 40,000 kgs of R additionally at a price of Rs. 9 per unit. Raw material is easily available in the market. The existing market of R will not be affected by accepting the offer, but price of Q is likely to be decreased uniformly on all sales.

Required

Calculate minimum reduced average price of Q to sustain the increased sales.

(5 Marks)

(b) Calculate the selling price per unit to earn a return of 12% net on capital employed (net of tax @40%). The cost of production and sales of 80,000 units are:

Variable cost including material cost Rs. 9,60,000

Fixed overheads Rs. 5,00,000

The fixed portion of capital employed is Rs. 12 lakhs and the varying portion is 50% of sales turnover. *(5 Marks)*

(c) State whether each of the following independent activities is value-added or non-value-added:

(i) Polishing of furniture used by a systems engineer in a software firm.

(ii) Maintenance by a software company of receivables management software for a banking company.

(iii) Painting of pencils manufactured by a pencil factory.

(iv) Delivering Packages by a delivery service.

(v) Providing legal research for legal services.

(vi) Too long or insufficient set up times *(6 Marks)*

(d) Explain following statement-

"Assignment problem is special case of transportation problem; it can also be solved by transportation methods" *(4 Marks)*

2. (a) A company is operating at 60 % of its capacity with a turnover of Rs. 43.20 lacs. If the company works at 100 % capacity, the sales-cost relation is:

Factory cost is two thirds of sales value. Prime cost is 75% of factory cost. Administration and selling expenses (75% variable) are 20% of the sales value. Factory overhead will vary according to operating capacity as given below:

Operating capacity (%)	60	80	100	120
Factory overheads (Rs.in lacs)	9.90	10.80	12	15

The company has planned to operate at 80% of its capacity. Moreover, it has received an export order and its execution will involve 40% of the capacity.

The prime cost of the order is estimated at Rs. 6.0 lacs and the shipping involved will be around Rs. 1.0 lac. Administration and selling expenses will be avoided on the export order. Taking the same percentage of profits as on the domestic sales, determine the minimum price to be quoted for the export order. *(7 Marks)*

(b) A company has to decide whether to accept a special order or not for a certain product M in respect of which the following information is given:

Material A required	5,000 kg	Available in stock. It was purchased 5 years ago at Rs. 35 per kg. If not used for M, it can be sold as scrap @ Rs. 15 per kg.
Material B required	8,000 kg	This has to be purchased at Rs. 25 per kg from the market.
Other hardware items	Rs. 10,000	To be incurred
Dept X -	5 men for 1 month @	Labour to be freshly hired.

Labour oriented	Rs. 7,000 per month per man	No spare capacity available.
Dept Y - Machine oriented	3,000 machine hours @ Rs. 5 per machine hour	Existing spare capacity may be used.
Patten and Specification	Rs. 15,000	To be incurred for M, but after the order, it can be sold for Rs. 2,000

Considering relevant costs, find out the minimum value above which the company may accept the order. *(5 Marks)*

(c) A company which has developed a new machine has observed that the time taken to manufacture the first machine is 600 hours. Calculate the time which the company will take to manufacture the second machine if the actual learning curve rate is (i) 80% and (ii) 90%. Explain which of the two learning rates will show faster learning. *(4 Marks)*

3. (a) A company manufactures two products A and B, involving three departments - Machining, Fabrication and Assembly. The process time, profit/unit and total capacity of each department is given in the following table :

	Machining (hours)	Fabrication (hours)	Assembly (hours)	Profit (Rs.)
A	1	5	3	80
B	2	4	1	100
Capacity	720	1,800	900	

Set up Linear Programming problem to maximize profits. What will be the product-mix at maximum profit level? What will be the profit? Use Simplex Method.

(11 Marks)

(b) "Balanced score card and performance measurement system endeavours to create a blend of strategic measures, outcomes and drive measures and internal and external measures". Discuss the statement and explain the major components of a balanced score card. *(5 Marks)*

4. (a) Local Authority of City X intends to install a road traffic regulating signal in a heavy traffic prone area. The total installation work has been broken down into six activities. The normal duration, crash duration and crashing cost of the activities are expected as given in the following table : .

Activity	Normal Duration (Days)	Crash Duration (Days)	Crashing Cost per day (Rs.)
1-2	9	6	30,000

1-3	8	5	40,000
1-4	15	10	45,000
2-4	5	3	15,000
3-4	10	6	20,000
4-5	2	1	60,000

You are required to:

(i) Draw the network and find the normal and minimum duration of the work.

(ii) Compute the additional cost involved if the authority wants to complete the work in the shortest duration. *(8 Marks)*

(b) Z Ltd. is a manufacturer of two types of flooring rolls, one for industrial usage and the other for domestic residential use. The company started with the production of residential domestic flooring. It is now an established player in this market. In the recent years, the company pioneered into making flooring rolls for industrial usage. The management has the following information about the budgeted and actual data for 2019-

Particulars	Static Budget			Actual Result		
	Industrial	Domestic	Total	Industrial	Domestic	Total
Unit Sales in Rolls ('000)	200	600	800	270	570	840
Contribution Margin (Rs.in millions)	10.00	24.00	34.00	12.825	15.390	28.21

In late 2018, a marketing research estimated market volume for industrial and domestic flooring at 8 million Rolls. Actual market volume for 2019 was 7 million Rolls. Actual sales trend of Z Ltd. is indicative of the sales trends for individual products in the future years, it is likely that they might continue to sell a similar sales trajectory.

Required

Computes Sales Variances in as much detail as possible. *(8 Marks)*

5. (a) In each of the following independent situations, state with a brief reason whether 'Zero Base Budgeting' (ZBB) or 'Traditional Budgeting' (TB) would be more appropriate for year II.

(i) A company producing a certain product has done extensive ZBB exercise in year I. The activity level is expected to marginally increase in year II.

(ii) The sales manager of a company selling three products has the intuitive feeling that in year II, sales will increase for one product and decrease for the other two. His expectation cannot be substantiated with figures.

(iii) The top management would like to delegate responsibility to the functional managers for their results during year II.

(iv) Resources are heavily constrained and allocation for budget requirements is very strict. *(4 Marks)*

(b) A company manufactures two products X and Y. Product X requires 8 hours to produce while Y requires 12 hours. In April, 2004, of 22 effective working days of 8 hours a day, 1,200 units of X and 800 units of Y were produced. The company employs 100 workers in production department to produce X and Y. The budgeted hours are 1,86,000 for the year.

Calculate Capacity, Activity and Efficiency ratio and establish their relationship.

(4 Marks)

(c) The K Co. presents the following static budgets for 4,000 units and 6,000 units activity levels for October 2019:

	4,000 units activity level	**6,000 units activity level**
Overhead A Rs. 12/hr. x 2 hr. /unit	96,000	1,44,000
Overhead B	1,40,000	1,90,000

Overhead C was omitted to be listed out. It is a fixed plant overhead, estimated at Rs. 12.5/hr. at 4,000 units activity level. This has to also feature in the flexible budget. The actual production was 5,000 units and 9,600 hours were needed for production.

You are required to present the flexible budget amount of each overhead to enable appropriate comparison with the actual figures. *(4 Marks)*

(d) State any *four* difference between Cost Control & Cost Reduction? *(4 Marks)*

6. (a) S Ltd. makes three products X, Y and Z in Divisions X, Y and Z respectively. The following information is given:

	X	**Y**	**Z**
Direct Material (Rs. / Unit) (excluding material X for Divisions Y and Z)	8	22	40
Direct Labour (Rs. / Unit)	4	6	8
Variable Overhead (Rs. / Unit)	2	2	2
Selling price to outside customers (Rs. /	25	65	90

Unit)			
Existing capacity (no. of units)	6,000	3,000	3,000
Maximum external Market demand (no of units)	5,000	5,500	5,000
Additional fixed cost that would be incurred to install additional capacity (Rs.)	45,000	9,000	23,100
Maximum additional units that can be produced by additional capacity	6,000	2,000	2,250

Y and Z need material X as their input. Material X is available in the market at Rs. 23 per unit. Defectives can be returned to suppliers at their cost. Division X supplies the material free from defects and hence is able to sell at Rs. 25 per unit. Each unit of Y and Z require one unit of X as input with slight modification.

If Y purchases from outside at Rs. 23 per unit, it has to incur Rs. 3 per unit as modification and inspection cost. If Y purchases from Division X, it has to incur, in addition to the transfer price, Rs. 2 per unit to modify it.

If Z gets the material from Division X, it can use it after incurring a modification cost, of
Rs. 1 per unit. If Z buys material X from outside, it has to either inspect and modify it at its own shop floor at Rs. 5 per unit or use idle labour from Division X at Rs. 3 per unit. Division X will lend its idle labour as per Z's requirement even if Z purchases the material from outside.

The transfer prices are at the discretion of the Divisional Managers and will remain confidential. Assume no restriction on quantities of inter-division transfers or purchases.

Discuss with relevant figures the best strategy for each division and for the company as a whole. ***(10 Marks)***

(b) T is operating its entire business through its four customers T_1, T_2, T_3, and T_4. T_1 and T_2 are small pharmaceutical stores while T_3 and T_4 are large discount stores with attached pharmacies. T prices its products at 25% above variable cost, although all four customers demand and receive a sizable discount off the list price.

The Finance Officer Mr. K has been asked to undertake a customer profitability analysis that shows the profit from each customer and each customer channel, stand-alone pharmaceuticals, and large pharmaceuticals attached to discount stores.

Mr. K identifies Rs.20,250 of general administration costs to small pharmaceuticals stores and Rs.48,375 of general administration costs to the large discount stores.

You are required to assist Mr. K in preparing a customer profitability report as desired. Also suggest some points to improve T's profit.

Item	Small Pharmaceuticals		Large Pharmaceuticals		Activity Rate
	T_1	T_2	T_3	T_4	
Number of Orders	4	9	6	3	Rs.750
Order Size	Rs.40,000	Rs.20,000	Rs.4,25,000	Rs.4,00,000	n/a
Average Discount	5%	10%	18%	12%	n/a
Regular Deliveries	4	9	6	3	Rs.375
Expedited Deliveries	2	0	2	0	Rs. 1,250

(6 Marks)

7. Answer any **four** of the following questions:

(a) How is Pareto analysis helpful in pricing of products in the case of a firm dealing with multiple products? *(4 Marks)*

(b) State whether and why the following statements are valid or not valid:

(Statements need not be copied into answer book.)

(i) Target costing is not applicable to a monopoly market.

(ii) Target costing ignores non-value added activities. *(4 Marks)*

(c) Following information is collected from various departments within the company relating to 2018-19:

	₹
Warranty claims	4,25,000
Employee training costs	1,20,000
Rework	3,00,000
Lost profits from lost customers due to impaired reputation	8,10,000
Cost of rejected units	50,000
Sales return processing	1,75,000
Testing	1,70,000

Required

Prepare a Cost of Quality Statement for the year 2018-19 showing the percentage of the total costs of quality incurred in each cost category. *(4 Marks)*

(d) Explain the concept of Just In time approach in a production process. *(4 Marks)*

(e) A refreshment centre in a railway station has two counters - (i) self-service (opted by 60 % of the customers) and (ii) attended service (opted by 40 % of the customers). Both counters can serve one person at a time. The arrival rate of customers is given by the following probability distribution:

No.of arrivals	1	3	4	0	2
Probability	0.10	0.30	0.05	0.20	0.35

Formulate the associated interval of 2 digit random numbers for generating

(i) the type of service and

(ii) the arrival rate *(4 Marks)*