

Test Series: October, 2013

MOCK TEST PAPER – 2

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) MFG Ltd. is producing a component called 'KDK'. Estimated costs are:

	Fixed Cost per year	Variable Cost per 'KDK'
	₹ '000	₹
Production	32,000	3,600
Distribution	2,000	200

Direct labour costs are 40% of the variable production costs. In the production department machining and assembling of 'KDK', 90 men work 8 hours per day for 300 days in a year. Each worker can machine and assemble 1 'KDK' per uninterrupted 180 minutes time frame. In each 8 hours working day, 20 minutes are allowed for coffee-break, 30 minutes on an average for training and 22 minutes for supervisory instructions. Besides 10% of each day is booked as idle time to cover checking in and checking out changing operations, getting materials and other miscellaneous matters.

MFG Ltd. has been facing industrial relations problem as the workers of company have a very strong union. Company is faced with the possibility of a strike by direct production workers engaged on the assembly of 'KDK'. The trade union is demanding an increase of 15%, back-dated from the beginning of financial year, but the company expects that if a strike does take place, it will last 25 Days after which the union will settle for an increase of 10% similarly back-dated. The only product of the company is being sold at ₹6,000.

If the strike takes place, Sales of 1,300 'KDK' would be lost. The balance that would ordinarily have been produced during the strike period could, however be sold, but these 'KDK' would have to be made up in overtime working which would be at an efficiency rate of 90% of normal. This would entail additional fixed cost of ₹1,00,000 and wage payments at time and one-half.

You are required to state, whether you would advise the management to allow the strike to go ahead, rather than to the union's demand. (12 Marks)

- (b) A project has the following time schedule:

Activity	Duration (in Weeks)
1—2	2
1—3	2
1—4	1
2—5	4
3—6	8
3—7	5
4—6	3
5—8	1
6—9	5
7—8	4
8—9	3

- (i) Draw the arrow diagram.
(ii) Identify critical path and find the total project duration.
(iii) Determine total, free and independent floats.

(8 Marks)

2. (a) E-Tech Ltd. manufactures and sells computers peripherals to several retail outlets throughout the country. Albert is the manager of the printer division. Its two largest-selling printers are Z2001 & Z2002. The manufacturing cost of each printer is calculated using E-Tech's activity based costing system. E-Tech has one direct manufacturing cost category (direct materials) and the following five indirect manufacturing cost pools.

Indirect manufacturing cost pool	Allocation Rate (₹)
1. Materials handling	₹ 0.60 per part
2. Assembly management	₹ 20.00 per hour of assembly time
3. Machine insertion of parts	₹ 0.35 per machine inserted part
4. Manual insertion of parts	₹ 1.05 per manually inserted part
5. Quality testing	₹ 12.50 per testing hour

Product characteristics of Z2001 and Z2002 are as follows:

Product	Z2001	Z2002
Direct materials costs	₹ 203.75	₹ 146.05
Number of parts	43.00	23.00
Hours of assembly time	2.00	1.00
Number of machine – inserted parts	24.00	15.00
Number of manually inserted parts	18.00	8.00
Hours of quality testing time	1.00	1.00

A foreign competitor has introduced products very similar to Z2001 and Z2002. Given their announced selling prices, to maintain the company's market share and profits. Albert estimated the Z2001 to have manufacturing cost of approximately ₹ 295 and Z2002 to have a manufacturing cost of approximately ₹ 180. He calls a meeting of product designers and manufacturing personnel at the printer division. They all agreed to have the ₹ 295 and ₹ 180 figures become target costs for designed version of Z2001 and Z2002 respectively. Product designers examine alternative ways of designing printer with comparable performance but lower costs. They come up with the following revised designs for Z2001 and Z2002 (termed Z2001 – REV and Z2002 – REV, respectively)

Particulars	Z2001 – REV	Z2002 – REV
Direct materials cost	₹ 190.60	₹ 131.55
Number of parts	36.00	19.00
Hours of assembly time	1.00	2.00
Number of machine – inserted parts	29.00	14.00
Number of manually – inserted parts	6.00	5.00
Hours of quality testing time	2.00	1.00

Required:

Compute the present costs of products Z2001 and Z2002 using ABC system.

Compute the manufacturing costs of Z2001 – REV and Z2002 – REV. How do they compare with the ₹ 295 and ₹ 180 target costs? (8 Marks)

(b) What are the limitations of 'Value Chain Analysis'? (4 Marks)

(c) "CPM is a deterministic model. However, PERT is a probabilistic model"-Explain. (4 Marks)

3. (a) Fast Forward Ltd. operates on a system of Flexible Budgets. With the aid of the following information, you are required to prepare Flexible Budget at 80%, 90% and 100%, level of activity showing the profits that would result at these levels:

- a) The present sale of 8,00,000 units at ₹ 10 each is at the normal level of 80%. If the output is increased to 90%, the selling price would be reduced by 2½% and if output reached 100%, the original selling price would be reduced by 5% in order to reach wider market.
- b) The prime cost per unit is ₹ 5 made up of Direct Material ₹ 3.50, Direct Labour ₹ 1.25 and Direct Expenses ₹ 0.25. If output reaches 90% level of activity and above, a saving of 5% can be effected in the purchase price of raw materials.
- c) Variable Overhead-salesmen's commission will be 5% of the sales value.
- d) Semi-Variable Overheads at normal level of activity are:

	₹		₹
Supervision	80,000	Salesmen Expenses	60,000
Power	70,000	Indirect Labour	1,00,000
Heat and Light	40,000	Transport Costs	2,00,000
Maintenance	50,000		

These are expected to increase by 5% if output reaches 90% level and by a further 10% if it reaches the 100% level.

- e) Fixed Overheads are:

	₹		₹
Rent and Rates	1,00,000	Administration	7,50,000
Depreciation	4,00,000	Sales Department	2,00,000
Advertisement	5,00,000		
General	50,000		

(8 Marks)

- (b) X Limited is engaged in manufacturing activities. It has received a request from one of its important customers to supply a product which will require conversion of material 'KM', which is a non-moving item.

The following details are available:

Book value of material 'KM'	₹ 30
Realisable value of material 'KM'	₹ 40
Replacement cost of material 'KM'	₹ 50

It is estimated that conversion of one unit of 'KM' into one unit of the finished product will require one labour hour. At present, labour is paid at the rate of ₹ 10 per hour. Other costs are as follows:

Out-of-pocket expenses ₹ 15 per unit

Allocated overheads ₹ 5 per unit

The labour will be re-deployed from other activities. It is estimated that the temporary redeployment will not result in loss of contribution. The employees to be re-deployed are permanent employees of the company.

Required:

Estimate the minimum price to be charged from the customer so that the company is not worse off by executing the order. (4 Marks)

(c) Explain 'Throughput Accounting'. (2 Marks)

(d) Enumerate the factors involved in decisions relating to expansion of capacity. (2 Marks)

4. (a) Three grades of coal A, B and C contains phosphorus and ash as impurities. In a particular industrial process, fuel up to 100 ton (maximum) is required which could contain ash not more than 3% and phosphorus not more than 0.03%. It is desired to maximize the profit while satisfying these conditions. There is an unlimited supply of each grade. The percentage of impurities and the profits of each grades are as follows:

Coal	Phosphorus (%)	Ash (%)	Profit in ₹ (Per ton)
A	0.02	3.0	12.00
B	0.04	2.0	15.00
C	0.03	5.0	14.00

You are required to formulate the Linear Programming (LP) model to solve it by using simplex method to determine optimal product mix and profit. (16 Marks)

5. (a) A company manufactures two products X and Y. Product X requires 4 hours to produce while Y requires 6 hours. In Jun, 2012, of 26 effective working days of 8 hours a day, 600 units of X and 400 units of Y were produced. The company employs 20 workers in production department to produce X and Y. The budgeted hours are 36,000 for the year.

Calculate Capacity, Activity and Efficiency ratio. (6 Marks)

- (b) Worldwide LTD. is engaged in marketing of wide range of consumer goods. M, N, O and P are the zonal sales officers for your zones. The company fixes annual sales target for them individually.

You are furnished with the following:

The standard costs of sales target in respect of M, N, O and P are ₹ 5,00,000, ₹ 3,75,000, ₹ 4,00,000 and ₹ 4,25,000 respectively.

M, N, O and P respectively earned ₹ 29,900, ₹ 23,500, ₹ 24,500 and ₹ 25,800 as commission at 5% on actual sales effected by them during the previous year.

The relevant variances as computed by a qualified cost accountant are as follows :

Particulars	M (₹)	N (₹)	O (₹)	P (₹)
Sales Price Variance	4,000 (F)	6,000 (A)	5,000 (A)	2,000 (A)
Sales Volume Variance	6,000 (A)	26,000 (F)	15,000 (F)	8,000 (F)
Sales Margin Mix Variance	14,000 (A)	8,000 (F)	17,000 (F)	3,000 (A)

Note: (A) = Adverse variance and (F) = Favourable variance

You are required to:

Compute the amount of sales target fixed and the actual amount of contribution earned in case of each of the zonal sales officer.

Evaluate the overall performance of these zonal sales officers taking three relevant base factors and then recommend whose performance is the best. (8 Marks)

- (c) Is it justifiable to sell at a price below marginal cost at any time? Mention any two circumstances in which it is justifiable. (2 Marks)

6. (a) A company following standard costing system has the following information for the quarter ending 30th June, 2013:

Material purchased	12,000 pieces at ₹ 1.32	₹ 15,840.00
Materials consumed	11,400 pieces at ₹1.32	₹ 15,048.00
Actual wages paid	2,970 hours at ₹ 4.20	₹12,474.00

Actual factory expenses incurred ₹ 20,400 (Budgeted ₹ 19,800)

Units produced: 1,080 units and sold at ₹ 72 per unit

The standard rates and prices are as under:

Direct materials ₹ 1.20 per unit

Standard input 12 pieces per unit

Direct labour rate ₹ 3.60 per hour

Standard requirement 3.00 hours per unit

Overheads ₹ 7.20 per labour hour

You are required to calculate Material Price Variance, Material Usage Variance, Labour Rate Variance, Labour Efficiency Variance, Overhead Efficiency Variance, Overhead Capacity Variance, Overhead Expense Variance. (8 Marks)

- (b) The product mix of a Delta Ltd. is as under:

	Products	
	M	N
Units	54,000	18,000
Selling price	₹ 7.5	₹ 15
Variable cost	₹ 6	₹ 4.5

Find the break-even points in units, if the company discontinues product 'M' and replace with product 'O'. The quantity of product 'O' is 9,000 units and its selling price and variable costs respectively are ₹ 18 and ₹ 9. Fixed Cost is ₹ 15,000. (4 Marks)

- (b) Give name of any four Cost Reduction Tools & Techniques. (2 Marks)
- (c) Explain 'Going rate pricing' (2 Marks)
7. Answer *any four* out of the following 5 questions:
- (a) Explain 'Degeneracy' in transportation problem. (4 Marks)
- (b) What are steps of 'Zero-base Budgeting' process? (4 Marks)
- (c) What is 'Kaizen Costing'? (4 Marks)
- (d) Explain "Plan – Do- Study- Act" cycle. (4 Marks)
- (e) "Transfer pricing is a widely debated and contested topic" – Discuss. (4 Marks)