

Test Series: September, 2012

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) Modern furniture Company has two divisions Division 'FXR' and Division 'FQR'. Both divisions are independent. Each division serves a different market in the furniture industry.

Division 'FXR' manufactures furniture that is use by the canteens/coffee bars. The division plans to introduce cushioned seat for the counter chairs. A cushioned seat currently made by the Division 'FQR' for use on its stylish stool could be modified for use on the new counter chair. Division 'FQR' can make the necessary modifications to the cushioned seat easily.

The raw materials used in Division 'FXR' seat are slightly different and should cost about 20 percent more than those used in Division 'FQR' stylish stool. However, the labour time should be the same because the seat fabrication operation is basically the same.

Division 'FQR' is operating at full capacity. By making the cushion seats for Division 'FXR', Division 'FQR' have to cut its production of stylish stools. However, Division 'FQR' can increase its production of normal stools. The labour time freed by not having to fabricate the frame or assemble the stylish stool can be shifted to the frame fabrication and assembly of the normal stool. Division 'FQR' can switch its labour force between these two models of stools without any loss of efficiency. Labour hours cannot be increase. Division 'FQR' has excess demand for both products. Following are Division 'FQR's standard costs for the two stools and a schedule of Division 'FQR's manufacturing overhead.

'FQR' DIVISION

Standard Selling Price and Cost

	Stylish Stool		Normal Stool	
	₹	₹	₹	₹
Selling price		225.00		160.00
Less: Raw materials				

Framing:	32.60		39.04	
Cushioned seat:				
Padding	9.60		-	
Vinyl	16.00		-	
Molded seat (purchased)	<u>-</u>	58.20	<u>24.00</u>	63.04
Less: Direct Labour				
Frame fabrication				
(0.5x₹30.00/DLH)	15.00		-	
(0.5x₹30.00/DLH)	-		15.00	
Cushion fabrication				
(0.5x₹30.00/DLH)	15.00		-	
Assembly*				
(0.5 x₹30.00/DLH)	15.00		-	
(0.3 x₹30.00/DLH)	<u>-</u>	45.00	<u>9.00</u>	24.00
Less: Manufacturing Overhead				
(1.5DLHx₹51.20/DLH)		76.80		-
(0.8DLHx₹51.20/DLH)		<u>-</u>		<u>40.96</u>
Profit/(Loss)		45.00		32.00

*Attaching seats to frames and attaching rubber feet.

'FQR' DIVISION
Manufacturing Overhead Budget

Overhead item	Amount ₹
Indirect Material (Variable-at current market prices)	16,80,000
Indirect labour (Variable)	15,00,000
Supervision (Non variable)	10,00,000
Power (Use varies with activity; rates are fixed)	7,20,000
Heat and light (Non variable-same regardless of production)	5,60,000
Miscellaneous overheads	8,00,000
(Non variable-any change in amounts or rates is independent of production)	
Depreciation (Fixed)	68,00,000
Employee benefits	23,00,000

(20% of supervision, direct and indirect labour)	
Total overhead	<u>1,53,60,000</u>
Capacity in DLH	3,00,000
Overhead rate/DLH	₹ 51.20

Required:

Assume that you are the corporate controller. What transfer price would you recommend for a 100 unit lot of seats? (16 Marks)

- (b) Briefly explain "It may not be possible to solve those problems using linear programming, in which non – linearity arises because of joint interactions between some of the activities regarding the total measure of effectiveness or total usage of some resource" (4 Marks)

2. (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) What are conventions normally adopted while drawing networks? (4 Marks)
3. (a) The chief officer at manufacturing plant of Boeing 777-200LR aircraft observed that workers performing manufacturing operations at the plant showed signs of a definite learning pattern. He noted that most aircraft manufacturing tasks experienced what he called an 80 percent learning rate, meaning that workers need 20 percent fewer hours to make a part each time their cumulative experience making that part doubled. Thus, if the first part took 100 minutes, the second would require 80 minutes, the fourth would require 64 minutes, and so on. Accordingly he requires calculating the time required for parts 41 to 60. [Note: learning coefficient is -0.322 for learning rate of 80%, $\log 2 = 0.30103$, $\log 3 = 0.47712$, $\log 5 = 0.69897$, Antilog of 1.484 = 30.48, Antilog of 1.4274 = 26.75] (6 Marks)
- (b) "Target costing is most useful in situations where the majority of product costs are locked in during the product design phase"-Explain with example. (7 Marks)
- (c) What is 'Value Engineering'? How does it differ from Value Analysis? (3Marks)
4. The following is the Operating Statement of a company for April 2011:

				(₹)
Budgeted Profit				2,00,000
Variances:		<u>Favourable</u>	<u>Adverse</u>	
		(₹)	(₹)	
Sales	Volume		8,000	
	Price	19,200		
Direct Material	Price		9,920	
	Usage		12,800	
Direct Labour	Rate		7,200	
	Efficiency	7,200		
Fixed Overheads	Efficiency	4,800		
	Capacity		8,000	
	Expense	2,800		
		<u>34,000</u>	<u>45,920</u>	<u>11,920 (A)</u>
Actual profit				188,080

Additional information is as under:

Budget for the year 1,20,000 units

Budgeted fixed overheads ₹9,60,000 per annum
Standard cost of one unit of product is:
Direct Materials 5 kg.@ ₹8 per kg.
Direct Labour 2 hours @ ₹6 per hour
Fixed overheads are absorbed on direct labour hour basis.
Profit 25% on sales
You are required to prepare the Annual Financial Profit / Loss Statement for April, 2011 in the following format:

Account	Qty./ Hours	Rate / Price(₹)	Actual Value (₹)
Sales			
Direct Materials			
Direct Labour			
Fixed Overheads			
Total Costs			
Profit			

(16 Marks)

5. (a) 'Thai-BGK Airways' operating 7 days a week has given the following time-table. Crews must have a minimum layover of 5 hours between flights. Obtain the pairing flights and minimizes layover time away from home. For any given pairings the crew will be based at the city that results in the smaller layover:

Kolkata – Bangkok			Bangkok - Kolkata		
Flight Number	Depart.	Arrive	Flight Number	Depart.	Arrive
KX1	05:30 AM	07:30 AM	BX1	07:30 AM	09:30 AM
KX2	07:30 AM	09:30 AM	BX2	08:30 AM	10:30 AM
KX3	01:30 PM	03:30 PM	BX3	01:30 PM	03:30 PM
KX4	07:30 PM	09:30 PM	BX4	06:30 PM	08:30 PM

(8 Marks)

- (b) What are steps of 'Zero-base Budgeting' process? (4 Marks)
(c) Write short note on 'Sealed Bid Pricing'. (4 Marks)
6. (a) Prepare a profit graph for products A, B and C and find break-even point from the following data:

Products	A	B	C	Total
----------	---	---	---	-------

Sales (₹)	7,500	7,500	3,750	18,750
Variable cost (₹)	1,500	5,250	4,500	11,250
Fixed cost (₹)	---	---	---	5,000

(6 Marks)

- (b) The cost per unit of transporting goods from the factories KX, KY, KZ to destinations IA, IB, IC, ID and IE, and the quantities demanded and supplied are tabulated below. You are required to evaluate the minimum transportation cost :

Factories	Destinations					Supply
	IA	IB	IC	ID	IE	
KX	165	90	120	150	150	120
KY	105	90	300	135	180	60
KZ	120	180	285	105	90	120
Demand	75	30	60	90	45	300

(7 Marks)

- (c) Briefly explain "Resource leveling is the project management technique which is used for reducing the requirement of a particular resource due to its paucity"

(3 Marks)

7. Answer any 4 out of the following 5 questions:

- (a) 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) Classify the following items under appropriate categories of equality costs viz. Prevention Costs, Appraisal Cost, Internal Failure Costs and External Failure costs:
- Rework
 - Disposal of scrap
 - Warranty Repairs

- (iv) Repair to manufacturing equipments
 - (v) Discount on defective sale
 - (vi) Raw material inspection
 - (vii) Finished product inspection
 - (viii) Establishment of quality circles (4 Marks)
- (c) (i) Briefly explain-“All activities of a firm are not subject to learning effect” (2 Marks)
- (ii) Two companies, Beta and Gama, have the same values for turnover and net profit and make a similar product. Beta has a higher P/V ratio than Gama. Which company will perform better when: (i) the market demand is high? (ii) the market demand is low? (2 Marks)
- (d) 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)
- (e) What is 'Kaizen Costing'? (4 Marks)