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# **LOCAL DEVELOPMENT II PROGRAM (LD II)**

**TECHNICAL ASSISTANCE PROJECT NO. 263 – 0182  
UNDER CONTRACT NO. 263 – 0182 – C – 00 – 3001 – 00**

Submitted to  
**USAID / CAIRO**

Submitted by  
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in association with

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ENVIRONMENTAL QUALITY INTERNATIONAL

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**REPORT: O & M**  
**FINANCIAL MANAGEMENT SEMINARS**

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## 1.0 Introduction

### 1.1 Background

During the implementation of LD II Projects, concerns for the sustainability of improvements, in the area of operations and maintenance, were raised among a widely distributed group of program participants. Generating additional local revenue was considered essential to the long term sustainability of the project. Technical assistance to improve the capacity of local units to generate additional income to sustain the provision of improved and expanded services was therefore provided to local government units by the Technical Assistance Contractor.

While providing technical assistance, it became increasingly clear that a greater emphasis should be placed on the development and maintenance of accurate cost accounting systems as a pre-condition to the development of pricing strategy for an income generation program.

A proposal was prepared to address observed weaknesses in the financial management of O&M workshops, the primary objective of this was to develop a "how to do it" manual for O&M managers who were engaged, in or contemplating commencement of, income generation programs. The guideline document for O&M workshop managers was to detail:

How to assess market potential

How to establish cash flow for employee incentives, purchasing of spare parts, equipment replacement/upgrading and upkeep of facilities.

Price/cost strategies to generate income on a competitive basis.

How to structure service rates

How to structure a training program to enhance the competitiveness of O&M facilities.

### 1.2 Objective of Report

The principal objective of this report was to outline the structure of the training program developed to complement the "Guidelines" manual.

The conclusions and recommendations were based upon both voluntary and structural feedback from training program participants.

### 1.3 Objective of Training Program

The pricing objective of the training program was to present the materials contained in the "Guidelines" manual in such a way to permit clearer understanding of the relationship between cost, price and income generation "profit". Income generation "profits" were to be used for employee incentive, purchase of additional spare parts, equipment replacement/upgrading and upkeep of facilities.

### 1.4 Course Outline

A series of four (4) financial management seminars conducted in the cities of Alexandria, Assuit, Suez and Fayoum, were intended to familiarize O&M workshop managers with cost accounting terminology and concepts in support of pricing strategies for income generation and automotive repair services.

The instructors utilized illustrated lectures to present the major points of the "Guidelines" manual. The material being presented was punctuated with exercises and discussions.

several "case study" problems were developed and presented after lectures. The case studies were designed to simulate cost accounting and pricing problems the participants would likely confront at their workshops. The case studies facilitated further discussion following presentation of solutions to problems by seminar participants.

It was assumed that each O&M workshop manager had some practical experience and basic knowledge of market economics. It was evident during the conduct of the seminar that this assumption was correct. The participants' understanding of market economics and the importance of accurate cost accounting systems was deepened and strengthened.

The seminars were held at hotel conference centers in cities where excellent income generation programs could be visited. This permitted O&M managers to share experience during the tea breaks, lunch periods and evening meals. This informal discussion was designed into the course outline to encourage group cohesion, the sharing of ideas and reinforcement of the cognitive learning process.

The competency of the participants was demonstrated by their being able to correctly apply the pricing formula outlined in the "Guidelines" manual. In addition, examinations of the course content were given prior to and immediately after instruction to gauge the level of understanding.

- 1) The exercises and case study problems are attached in the Appendices
- 2) The Agenda for the seminar series is attached as appendices.

## 2.0 Alexandria

The seminar was held at the Plaza Hotel on the Corniche in Alexandria. Twenty four (24) participants were invited from governorates in the West Delta. A total of twenty one (21) participants registered and attended. (see attached registration list for governorates represented).

It was clearly evident from the beginning of instruction that the participants had significant practical experience in the management of O&M workshop and were willing and eager to learn the cost accounting concepts and pricing strategies outlined in the "Guideline" manual. The pre/post instruction scores were:

INDIVIDUAL EXAMINATION SCORES (OUT OF 20)			
PRE-INSTRUCTION - 18 CANDIDATES		POST INSTRUCTION - 21 CANDIDATES	
7	4.5	12	10
13	6	7	7.5
7	6.5	10	10.5
5	6	10	11
7.5	3	5	9.5
6.5	2.5	12	8.5
9.5	9.5	12	6.5
7	7	10.5	2.5
8	12.5	12	10.5
		11	12
		13	

Rate of Knowledge Growth = 39%

The range of pre-instruction examination areas was a low of 2.5 to a high of 13 with an average test score of 7 the standard deviation was 2.67.

The range of post-instruction examination scores was a low of 5 to a high of 12.5 with an average score of 10. The standard deviation was 2.07.

The 39% improvement in post-instruction test scores indicates the level of effort exerted by participants and instructors during the seminar.

A trip to the Amerya District Garage provided the practical framework to many of the participants as they saw various income generation projects in progress and learned first hand how to initiate such programs for their own workshops.

### 3.0 Assuit:

The seminar was held at the Assuitel Hotel on the Nile Road in Assuit. Twenty four (24) participants were invited from various governorates in Upper Egypt. Twenty four (24) participants registered and attended. (see attached registration list).

The instructors encountered even more enthusiasm for the training among the participants in Assuit than they did among the eager Alexandria participants. There also seemed to be a greater willingness to solve the exercise problems and read the "Guidelines" manual.

INDIVIDUAL EXAMINATION SCORES (OUT OF 20)			
PRE-INSTRUCTION - 15 CANDIDATES		POST INSTRUCTION - 17 CANDIDATES	
7	10	12.5	17
7	10	13	17
7	11	13	12.5
8	11	10	16
8	11	13.5	14
9	13	17	17
9		15.5	17
9		9	16
10		12	

Rate of knowledge growth = 52%

The range of pre-instruction test scores was a low of 7 to a high of 13 with an average test score of 9.5. The standard deviation was 1.75.

The range of post-instruction test scores was a low of 9 to a high of 17 with an average test score of 14.5. The standard deviation was 2.46.

The 52% improvement in post-instruction test scores indicates the high level of enthusiasm for the course among the participants in Assuit. The instructors were particularly gratified by the participants willingness to solve the experience and case study problems and share their solutions with others.

The seminar in Assuit included a visit to the Assuit pilot maintenance center which is now operating as a private-company. Although the participants were interested in the facility and its general operation, the aspect that most interested them was the American-style job order and cost accounting system introduced by the previous Technical Assistance Contractor. Although the "Guidelines" manual contains an Appendix with the necessary forms, questions were directed to the financial manager regarding implementation and operation of such a system.

#### 4.0 Suez

The seminar in Suez was held in the Greenhouse Hotel. Twenty four (24) participants were invited to attend from various governorates in the East Delta and Sinai. Twenty three (23) Participants registered and attended. (see attached registration list).

The training program was inaugurated by a visit from the Governor and the Secretary-General of Suez. Their opening remarks stressed the importance of income generation projects for the sustainability of O&M efforts at the district and markaz level of local administration. The participants responded enthusiastically by working harder than the previous two groups.

The test scores in Suez were as follows:

INDIVIDUAL EXAMINATION SCORES (OUT OF 20)						
PRE-INSTRUCTION -18 CANDIDATES			POST INSTRUCTION -23 CANDIDATES			
9.5	6	10	11	12.5	11.5	8.5
5	6.5	11.5	9	11	11	12
6	4	6.5	9	13	9.5	14
4	11.5	11.5	10.5	11	9.5	10.5
5.5	8	11.5	6.5	9.5	9.5	11
8.5	11	3.5	12	8.5	11	

Rate of Knowledge Growth = 35%

The range of pre-instruction examination scores was a low of 3.5 to a high of 11.5 with an average test score of 8. The standard deviation was 2.84.

The range of post-instruction examination scores was a low of 6.5 to a high of 14 with an average test score of 10.5. The standard deviation was 1.64.

The 35% improvement in post-instruction test scores indicates that a good level of effort was exerted by seminar participants.

A field trip to the Suez MMC was a part of the course instruction. This field trip permitted participants to witness income generation projects in progress. Especially interesting was the service station operated by the MMC which generated substantial income for the benefit of O&M efforts and employee incentives.

The Secretary-General of Suez was invited to the MMC and he reinforced the positive remarks of the previous day. During a panel discussion HE the Governor remarked that the "governorate sector has a comparative advantage" over the private sector because "depreciation and profit" does not have to be considered in the pricing decision of the O&M workshops. This remark illustrates the need to change the bias of appointed public officials at the highest levels of government. Unless and until the economic foundation is altered, the inefficiencies of the socialist economic structure will persist.

5.0 Fayoum

The seminar was held at Le Ouberge Hotel in Fayoum. Twenty four (24) participants were invited from various governorates in Central Egypt. Twenty two (22) participants registered and attended. (see attached registration list).

The training program in Fayoum was inaugurated by the Secretary General of Fayoum governorate. Fayoum governorate has 96% of its districts employing income generation schemes. He stressed the importance of sustaining O&M efforts through income generation.

The examination scores in Fayoum were:

INDIVIDUAL EXAMINATION SCORES (OUT OF 20)						
PRE-INSTRUCTION -21 CANDIDATES			POST INSTRUCTION -22 CANDIDATES			
6.5	9.5	12	16	9.5	6.5	19.5
6	9.5	5.5	15	10.5	15	
12.5	6.5	8	12	14	11.5	
9	8.5	6	11.5	8.5	12.5	
10.5	9	11	10	10.5	13	
8	13	7	15	8	7	

Rate of knowledge growth = 40%

The range of pre-instruction examination score was a low of 6 to a high of 12.5 with an average test score of 8.5. The standard deviation was 2.66.

The range of post-instruction examination scores was a low of 6 to a high of 19.5 with an average test score of 11.75. The standard deviation was 3.35.

The 40% improvement in post-instruction test scores once again illustrates levels of effort exerted by participants and instructors during the seminars.

A field trip to the Tameya District Garage enabled seminar participants to see income generation projects in progress. The unique aspect of this district garage project was that it assembled working machines and food blenders for sale in the local areas.

The participants in Fayoum are more politically inclined than any other group and tended to wait to direct discussions from course content to Egyptian politics. The pre-disposition to discuss political economy reflected the bias of the Cairo/Giza participants who benefit the most from the subsidized O&M efforts and who have no income generation projects in progress.

### Aggregate Test Scores

Aggregate test scores can be illustrative of the results of the training program. The objective of the training program was to familiarize participants with free market economics, cost accounting and pricing strategies. The test scores were:

#### Pre-Instruction

	<u>Alex</u>	<u>Ast</u>	<u>Fay</u>	<u>Suz</u>	<u>Aggregate</u>
High	13	13	11.5	12.5	12.5
Low	2.5	7	3.5	6	4.75
Aug	7	9.5	8	8.5	8.25
STD	2.67	1.75	2.84	2.66	2.48

#### Post-Instruction

	<u>Alex</u>	<u>Ast</u>	<u>Fay</u>	<u>Suz</u>	<u>Aggregate</u>
High	13	17	14	19.5	15.88
Low	5	9	6.5	6	6.63
Aug	10	14.5	10.5	11.75	11.69
STD	2.07	2.46	1.64	3.35	2.38

It is clear from the data that the participants level of understanding of general free market economics was deepened as a result of the training effort.

More importantly, the participants demonstrated their newly acquired competency during the final case study exercise in which they were required to calculate new pricing levels and submit a competitive bid to the "Cairo Transit Authority" All participants agreed that the case study approach helped them focus on the importance of accurate cost accounting data.

The primary objective of the training program was achieved. The participants learned more about the importance of collecting and maintaining accurate cost accounting data and what relationship those costs have to prices and potential profits.

The major benefit derived from the training program was the development of the participants ability to think strategically (not merely to apply some single pricing formula to each new business problem but to develop business strategies).

Each of the participants expressed their gratitude to the instructors because they believed this financial management training was particularly important to them as the Egyptian economy becomes more

liberalized and less centrally directed. The participants recognized the complexity of the subject matter and wanted more time for more instruction and especially more practical experience.

## 6.0 Conclusions and Recommendations

The financial management training incorporating of the "Guidelines" manual was very successful in introducing and familiarizing O&M workshop manager with cost accounting terminology and concepts in support of pricing income generation projects and automotive repair services.

The major short-coming of the seminars was "time". All participants would have appreciated and benefitted from a chance to gain a deeper understanding of the subject.

If privatization, and income generation, are to be focuses for any future USAID programs, the development of local O&M facilities should provide very fertile ground.

**APPENDIX A**

**AGENDA**

## Agenda

### O&M Cost\ Pricing Seminar

Day 1	Travel To Training Site
1200	Welocme (luncheon buffet)
1300	Introduction and examination
1330-1500	Market economics
1515-1515	Groyp discussion
1515-1715	Break-even analysis
1715-1730	- Break - (coffee, tea, Soda and fruits)
1730-1900	Job order cost accounting
1900-1915	"Assignment for evening study"
1915-2000	Study group
2000	Evening meal
Day 2	
0800-0900	Review cost accounting assignment
0900-0930	Depreciation
0930-1000	Practical exercise in accounting depreciation
1000-1015	-Break - (coffee, tea and biscuits)
1015-1115	Estimating market potential
1200-1300	Luncheon buffet
1300-1400	Pricing methods
1400-1500	Works sessions
1500-1515	-Break - (ciffec, team soda)
1515-1630	Pricing strategies
1630-1715	Group discussion
1715-1730	Break (coffee, tea.n soda and fruits)
1730-1800	Assignment of case study

1800-2000

Study group

2000

Evening meal

Day 3

0900-1000

Review case study

1000-1100

Cash flow estimation

1100-1200

Final examination and discussion

1200

Departure

**APPENDIX B**

**EXERCISES AND CASE STUDY**

**EXAMINATION**

1. **The Economic Reform and Structural Adjustment Program initiated by the Government of Egypt is attempting to:**
  - a. Rely on the private sector for growth and economic development.
  - b. Promote free market competition and price liberalization.
  - c. Promote public enterprise reform and privatization.
  - d. All of the above.
  - e. None of the above.
  
2. **Customers will tend to buy more of a product or service if the price is high and will avoid the product or service if the price is too low.**

True \_\_\_\_\_

False \_\_\_\_\_
  
3. **The demand for a product is said to be elastic if:**
  - a. The coefficient of elasticity is less than one (1).
  - b. Consumers are largely indifferent to price changes.
  - c. A drop in the price is accompanied by increased demand.
  - d. A drop in the price is accompanied by decreased demand.
  
4. **In which the following instances will total revenue decline?**
  - a. Prices rise and demand is elastic.
  - b. Prices fall and demand is elastic.
  - c. Prices rise and demand is inelastic.
  
5. **Which of the following statements is correct?**
  - a. If money income increases, the demand for goods and services will increase.
  - b. If the price of beef falls, the demand for lamb will increase.
  - c. Because of the governments' ability to control prices for certain products, the public sector companies are guaranteed a profit.
  - d. If the price of lamb falls, the demand for beef will increase.
  
6. **Which of the following is most likely to be a fixed cost for a District Garage?**
  - a. Wages paid to unskilled laborers.
  - b. Transportation costs paid for shipments of spare parts.
  - c. Payments for raw materials.
  - d. Depreciation on buildings and equipment.
  - e. All of the above.
  
7. **Which of the following describes a temporary adjustment in supply?**

- a. Arab-American Vehicles builds a new assembly plant.
  - b. The number of feddans of farmland in Luxor declines by 5 percent.
  - c. Six new maintenance garages are built and staffed.
  - d. A district garage hires two additional mechanics.
8. **Marginal cost can be defined as:**
- a. The cost of the most efficiently produced item.
  - b. The change in fixed cost resulting from one more unit of production.
  - c. The difference between fixed and variable cost at any level of output of production or service.
  - d. The amount which one more unit of output adds to total costs.
  - e. The difference between price and average total cost at the profit maximizing level of output.
9. **Fixed costs are those costs:**
- a. Whose prices are fixed in the market.
  - b. Which are subject to diminishing marginal productivity.
  - c. Which are embodied in the calculation of marginal cost.
  - d. Which are independent of the rate of service output.
  - e. None of the above.
10. **A competitive district garage will maximize income generation profits at that level of service output at which:**
- a. The difference between price and marginal cost is at a maximum.
  - b. The difference between marginal revenue and price is at a maximum.
  - c. Price exceeds average total cost by the largest amount.
  - d. Total revenue and total cost are equal.
  - e. The excess of total revenue over total cost is greatest.
11. **In the short-run, income generation projects should be stopped if:**
- a. Price falls short of average total cost at all outputs.
  - b. There is no point at which marginal cost and marginal revenue are equal.
  - c. Price falls short of average fixed cost at all outputs.
  - d. Price falls short of average variable cost at all outputs.
  - e. Income generation cannot produce a profit.
12. **Misr El Gedida Car Wash charges LE 2.00 to wash a car. The variable costs of washing a car are 15% of sales. Fixed costs total LE 1,020 monthly. How many cars must be washed each month in order for the Car Wash to "Break-even" have neither a profit nor a loss?**
- a) 510
  - b) 600
  - c) 550
  - d) 610
13. **The 6th of October Repair Garage has implemented an income generation project to provide additional salary incentives to its employees. In addition to regular wages, the 6th of October Repair Garage plans to pay a 15% sales commission to employees who bring in additional work. The Repair Garage charges its customers LE 100 for a complete maintenance inspection including oil change, lubrication and change of filters. Direct labor and materials costs for the inspection are LE 80.**

Fixed costs are LE 1,200 per month. How many inspection must be performed each month to "Break even" if sales commission are paid?

- a) 120
- b) 360
- c) 240
- d) 480

14. The following are a number of cost accounting terms:

- |                    |                 |
|--------------------|-----------------|
| - Variable Cost    | - Fixed Cost    |
| - Opportunity Cost | - Period Cost   |
| - Product Cost     | - Indirect Cost |
| - Direct Cost      | - Sunk Cost     |

Choose the term or terms above which most appropriately describe the cost identified in each of the following situations.

- a) The spare parts going into the repair of a truck would be a direct cost. In terms of cost behavior, the spare parts would be described as a variable cost.
- b) Depreciation of machinery and equipment can be classified as both a period cost and a product cost at a repair garage. In terms of cost behavior, depreciation probably should be classified as a fixed cost.
- c) Several hundred clutch plates were purchased for spare parts inventory. These clutch plates were for a transmission no longer in service in the Governorate fleet. The amount of money invested in these obsolete spare parts is a sunk cost.
- d) The General Managers' salary can be classified as an indirect cost. The General Manager could have become a consultant to USAID. The consultant fees foregone would be called an opportunity cost.

15. The Upper Egypt Repair Garage assigns overhead to completed jobs on the basis of 125% of direct labor cost. The job cost sheet for job 313-93 shows that LE 10,000 in direct material has been used on the job, and that LE 1,200 in direct labor cost has been incurred. What is the cost for job 313-93?

- a) 11,250
- b) 12,700
- c) 11,200
- d) 11,500

16. True or false?

Operating leverage is tied in with a repair shop's cost structure in that operating leverage is greatest in repair shops which have high fixed costs and low per unit variable costs.

- True \_\_\_\_\_
- False \_\_\_\_\_

17. What happens if sales volume increases?

- a) Accounts receivable increases.
- b) Accounts payable increases.
- c) Direct materials expenses increase.
- d) All of the above.
- e) a + b only
- f) a + c only
- g) b + c only

18. What is the Governorate of free market economics?

- a) Maximize profits.
- b) Increase person wealth.
- c) Customer orientation.
- d) Buying a Mercedes 600 SEL!

19. The East Delta Central Repair Shop has developed a good reputation for rebuilding water pumps. The General Manager was directed to price the repair of water pumps to achieve a 20% return-on-investment. Variable costs of rebuilding each pump is LE 50. The total fixed cost of the Repair Shop is LE 250,000. The cost of the special pump testing equipment used for quality control is LE 25,000. The Repair Shop has a capacity to produce 10,000 pumps per year. It estimates that sales of pumps would utilize only 75% of productive capacity. What should the target selling price be for each rebuilt pump?

- a) LE 75
- b) LE 60
- c) LE 84
- d) LE 65

20. Depreciation recognizes the reduction in value of an asset, such as machinery and equipment, over the useful life of the asset as it is used up. Depreciation expenses reduce net profit and reduce the cash flowing through the repair shop.

True \_\_\_\_\_

False \_\_\_\_\_

## MARKET ECONOMICS

### GROUP DISCUSSIONS

1. Consider the market for beef in the Arab Republic of Egypt
  - a) List five substitutes for beef
  - b) What factors affect the demand for beef?
  - c) What factors affect the supply of beef?
  - d) Draw a supply and demand curve for beef
2. Assume that the price of cattle feed goes up. What is the likely impact on the supply of beef?
3. What would be the effect of establishing a price control for beef? Please illustrate the effect using the supply and demand curve.
4. What policies would you recommend to the Minister of Agriculture to lower the price of beef?

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## JOB ORDER COST ACCOUNTING

### ASSIGNMENT FOR EVENING STUDY

1. Misr Company of Automotive Repair recently won a contract to supply special parts that are subject to wide seasonal variation in demand and production. The Financial Manager has been calculating unit costs on a quarterly basis by dividing each quarter's direct costs (material and labor) and overhead costs by the quarter's production of units. Misr Company's estimated costs, by quarter, for the next fiscal year are given below:

	1st QTR LE	2nd QTR LE	3rd QTR LE	4th QTR LE
- DIRECT MATERIALS	16,000	8,000	4,000	12,000
- DIRECT LABOR	3,000	1,500	750	2,250
- OVERHEAD	30,000	30,000	30,000	30,000
TOTAL COSTS LE	49,000	39,500	34,750	44,250
- UNITS PRODUCED	20,000	10,000	5,000	15,000
- EST. COST PER UNIT	2.45	3.95	6.95	2.95

The General Manager is concerned about the variation in unit costs and wonders if there is a way to assign the overhead costs to units of product more equitably.

Required:

- a) How should the overhead costs be assigned? Be specific and recommend a new system.
  - b) Recalculate unit costs in accordance with your recommendation.
2. The 6th of October Company for Automotive Repair utilizes a pre-determined overhead rate to apply overhead to job orders. Overhead is applied on a basis of direct labor cost in the Mechanical Shop and on the basis of machine hours in the Turning Shop. At the beginning of the new fiscal year, the General Manager made the following estimates:

		<u>MECHANICAL SHOP</u>		<u>TURNING SHOP</u>
- DIRECT LABOR HOURS		15,000		6,000
- MACHINE HOURS		200		21,000
- Direct Materials	LE	30,000	LE	15,000
- Direct Labor Cost	LE	64,000	LE	42,000
- Overhead Cost	LE	80,000	LE	75,600

**Required:**

- a) Compute the pre-determined overhead rate to be used in each of the shops during the coming year.
- b) Assume that the job order 94-001 showed the following information on the job cost sheet:

		<u>MECHANICAL SHOP</u>		<u>TURNING SHOP</u>
- Materials Requisitioned	LE	516	LE	140
- Direct labor cost	LE	120	LE	35
- DIRECT LABOR HOURS		120		35
- MACHINE HOURS		10		35

Compute the overhead cost charged to job order 94-001



## ESTIMATING MARKET POTENTIAL

### GROUP DISCUSSION OF DATA NEEDS

For the past ten (10) years American Automotive Repair Corporation has been actively working with several governments in planning and building vehicle maintenance centers. As a result, American Automotive Repair Corp. has subsidiary companies operating in three (3) countries providing vehicle repair service.

You have been hired by American Automotive Repair Corp. as a consultant to assist them in exploring the possibility of opening a subsidiary company in the Arab Republic of Egypt.

What types of information will be needed by American Automotive Repair Corp.? How will you obtain the information?

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**PRICING METHODS**

**PRACTICE PROBLEMS**

Misr Company for Automotive Repair Services operates a central repair shop in Hurghada. The company's profit margin has dropped steadily over the past few months and the Board of Directors is concerned that prices may be too low or costs are too high. The company has a target profit of LE 6.00 per hour of repair service time, and a target profit of 10% of the invoice cost of spare parts used. Misr Company maintains a large inventory of spare parts in order to give prompt repair service to its customers.

The General Manager was provided with the following information from the Financial Manager:

	<u>COMMON COSTS</u>	<u>REPAIR COSTS</u>	<u>PARTS COSTS</u>
	<u>LE</u>	<u>LE</u>	<u>LE</u>
- GENERAL SALARIES	10,000		
- REPAIR SUPV.		2,880	
- STOREKEEPER			3,450
- REPAIR TECHNICIANS		20,000	
- CLERICAL	2,000		1,700
- DEPRECIATION	50,000	6,000	2,400
- UTILITIES	3,600		
- MOBILE REPAIR		5,000	
- INSURANCE	12,000		
- INVOICE COST OF PARTS			290,300
<b>TOTAL LE</b>	<u>77,600</u>	<u>33,880</u>	<u>297,850</u>

The Misr Company employs 10 repair technicians who work a 40 hour work week, 50 weeks per year. During the past year, the company has billed repair service time at LE 9.50 per direct labor, and has added 15% to the invoice cost of spare parts.

Common costs are allocated between repair and spare parts cost centers in accordance with the following guidelines:

- General salaries and clerical staff in the same proportion as direct labor to storekeeper wages.
- Depreciation, utilities and insurance in accordance with square meters of shop floor space.

The Misr Company's building occupies 2,050 square meters of land. The storeroom is 615 square meters and the repair shops occupy 1,435 square meter of building space.

Required:

- 1) Compute the rate per direct labor hour of repair service time and the material loading charge that should be used as a percentage of the invoice cost of parts used.
  
- 2) Compute the estimated price for a repair job that the OEM suggests would require 25 hours of mechanics' time and LE 1,700 in parts.

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## PRICING STRATEGIES

### GROUP DISCUSSION

- 1) What is meant by the term "Cost-plus" pricing? In what sense is the term "cost-plus" misnamed?
- 2) Please discuss the following statements:

If a workshop always sets its price above full cost, it will never have to worry about operating at a loss.

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**CASE STUDY**

The Tenth of Ramadan District Maintenance facility has initiated income generation activities in accordance with all applicable by-law regulations. The Tenth of Ramadan garage provides automobile repair and related services to a wide variety of commercial, governmental private clients. They have developed a reputation for high quality. The garage maintains a large spare parts inventory in order to have the necessary parts on hand when needed for repair work. The garage has expanded its repair service to include accident repair and painting.

The repair facility, built with the assistance of USAID, is very large and has considerable excess capacity. Although the income generation program is successful, it has never been very profitable. The Maintenance Coordinator from the Governorate is concerned that the pricing rates in use may be too low. The garage has been invoicing customers at the rate of LE 5.00 per direct labor hour and a 20 percent mark-up over spare parts invoice costs. Generous discounts have been negotiated with some customers.

Income generation projects have a target profit of LE 2.00 per direct labor hour and 10 percent of the invoice costs of spare parts. Target ROI is 19%

The Financial Manager provided the General Manager with the following information for the most recent 12 month period. Costs were allocated between repair and parts.

<u>COSTS</u>	<u>REPAIR SHOP</u> <u>LE</u>	<u>PARTS SHOP</u> <u>LE</u>
- INVOICE COST OF PARTS USED		254,800
- MECHANICS WAGES (1.E 1/Hour)	31,500	
- STORE KEEPERS WAGES		6,370
- REPAIR MANAGER SALARY	2,400	
- PARTS MANAGER SALARY		2,100
- CLERICAL SALARIES	600	400
- GENERAL ADMINISTRATION	12,850	5,600
- INSURANCE	8,900	4,750
- UTILITIES	4,000	1,000
- DEPRECIATION	50,000	18,000

Required:

- a) Compute the rate that should be charged per hour of mechanic time and the material loading charge (mark-up) that should be a percentage of the invoice cost of parts. What are the three cost components of the direct labor charge and the two cost components of the material handling charge?

- b) What invoice price should be charged to the Governorate for the repair of a dump truck that required 172 hours of labor and LE 17,400 of spare parts?
- c) The Cairo Transportation Authority has issued an invitation to Bid on the supply of 1000 diesel engine blower shafts. The turning shop has the technical capability to produce these shafts in accordance with the bid specifications.

The pricing of the 10th of Ramadan Garage has been changed in accordance with the answer for question "a" and has worked well for the past several months.

After reviewing the bid specifications, the Technical Supervisor and the Financial Manager have made the following cost estimates:

-	DIRECT MATERIALS	LE	40,000
-	DIRECT LABOR	LE	2,100
-	VARIABLE OVERHEAD	LE	10,000
-	ALLOCATED FIXED COST	LE	15,000
-	SPECIAL TOOLS FOR JOB	LE	5,000
-	SHIPPING COSTS	LE	1,000
-	ADMINISTRATIVE COSTS	LE	500
	TOTAL COSTS	LE	<u>73,600</u>
	1,000 PIECES		
	COST PER PIECE	LE	73.60

Your purchasing manager has connections at the Cairo Transit Authority and has learned that last year's winning bid price was LE 65 per piece.

What is your price? Defend your answer!

## DEPRECIATION

### PRACTICE EXERCISE

You have recently been appointed General Manager of the Central District Workshop. The Financial Manager has been accepted for graduate studies at the Harvard Business School in the USA and has been granted a leave of absence. After taking the Financial Manager to the Cairo Airport for his trip to the USA, you receive a telephone call from the Secretary General's office requesting you to summarize the depreciation expenses outlined in the monthly financial reports dated May 1993. You are able to uncover the following information:

-	Building cost	LE	1,500,000
-	Invoice cost of machinery	LE	600,000
-	Invoice cost of vehicle	LE	252,000
-	Invoice cost of furniture	LE	30,000
	<b>TOTAL</b>	<b>LE</b>	<b>2,380,000</b>

The building was completed on the 1st of May, 1990 and all the vehicles, machinery and furniture was delivered the same day.

Required:

- a) Calculate the monthly depreciation expense for the Central District Workshop
- b) What is the remaining book value of the workshop's assets?

**APPENDIX C**

**SEMINAR REGISTRATIONS**

**IN ALEXANDRIA**

Alex.	6
Matruh	3
Kafr El Sheikh	3
Behira	3
Gharbia	3
Munofia	3
Dakhalia	3
	<hr/>
	24

**In Assuit**

Minya	6
Assuit	4
New Valley	3
Qena	4
Sohag	4
Aswan	3
	<hr/>
Total	24

**In Suez**

Suez	4
Ismalia	4
Port Said	3
N. Sinai	3
S. Sinai	3
Red Sea	3
Damitta	3
	<hr/>
Total	23

**In Fayoum**

Cairo	3
Giza	3
Qaluibia	4
Fayoum	6
Beni Suef	4
Sharkia	4
	<hr/>
Total	24