ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Commerce)

MANAGERIAL ECONOMICS (8522)

CHECKLIST

SEMESTER: AUTUMN, 2012

This packet comprises the following material:

1. Text Book (One)
2. Assignment No. 1, & 2)
3. Assignment Forms (Two sets)
4. Schedule for assignment submission and tutorial meetings

If you find anything missing in this packet, please contact at the address given below:

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Muhammad Munir
(Course Coordinator)
ASSIGNMENT No. 1
(Units: 1–9)

Q. 1 Define managerial economics. Discuss the scope of managerial economics in details. (20)

Q. 2 a) Explain how the MRS, at a particular combination of two products, would differ between two consumers. One consumer likes hamburgers and loves cokes and the other loves hamburgers and merely like cokes. (10+10)

b) Imagine two consumers; Mr. A, who simply appreciates classical music, and Ms. B, who is wildly enthusiastic about it. Suppose that in a simple two product situation, both buy classical music records in conjunction with some other product Y.

i) Using the indifference maps for each consumer, derive each of their demand curves from their price consumption curves. (Assume that they have the same income and face the same prices.)

ii) Aggregate their individual demands to find their total demand for the records at each price.

Q. 3 a) Discuss three ways that a firm may use to stabilize its costs per unit in the short run, rather than be forced to produce at varying levels of marginal cost. (10+10)

b) Silver Star Corporation has estimated its production function as follows:

\[ Q = 38.6K + 3.2K^2 - 1.8K^3 + 16.3L + 2.8L^2 - 0.85L^3 \]

Where K represents units of the capital input (in $1,000 units) and L represents unit of the labor input (in hundreds of labor hours)

i) Construct the total product and marginal product curves for the case of K=5.

ii) At what level of labor input, do diminishing returns become evident?
iii) If labor were available at no cost (students wishing to gain work experienced and willing to work without wages), what input level would you choose? Why?

Q. 4 The Minical Electronics company produces pocket calculators that are sold to various retail outlets at a price of $20. Minical feels it can sell all as it is able to produce at this price. The following table indicates the physical input requirements for several weekly output levels, as compiled by the production manager, Paula Wald.

<table>
<thead>
<tr>
<th>Output (units)</th>
<th>500</th>
<th>650</th>
<th>800</th>
<th>950</th>
<th>1,100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Hours</td>
<td>1,000</td>
<td>1,200</td>
<td>1,400</td>
<td>1,600</td>
<td>1,800</td>
</tr>
<tr>
<td>Component “packages”</td>
<td>750</td>
<td>1,000</td>
<td>1,275</td>
<td>1,575</td>
<td>1,895</td>
</tr>
<tr>
<td>Power (kWk)</td>
<td>225</td>
<td>400</td>
<td>500</td>
<td>650</td>
<td>1,000</td>
</tr>
<tr>
<td>Maintenance hours</td>
<td>5</td>
<td>15</td>
<td>23</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>Machine hours</td>
<td>20</td>
<td>25</td>
<td>29</td>
<td>32</td>
<td>39</td>
</tr>
</tbody>
</table>

The hourly wage rate paid for assembly labor is $5.50. The cost of a “package” of components is $5.00 each. (These packages each contain all the components necessary to produce one calculator. Because of imperfections in some components and breakage due to rough handling, more than one package per calculator is typically required) power cost $0.038 per kilowatt-hour, machine hours cost $10 per hour, and maintenance hours cost $25 each.

a) Using the engineering technique and gradient analysis, construct the AVC and MC curves implied by the physical input/output relationship and the prices of the inputs.
b) At what output level are the variable inputs (combined) most efficient?
c) What output level should the firm produce to maximize the contribution from this product?

Q. 5 a) Demonstrate that the investor’s degree of risk aversion (or preference) is an important element in determining his/her choice among investment alternatives.

b) Sounds True, Inc. a small company producing stereo amplifiers, has found that its leading model has suffered substantial market share losses because of the competition from the other producers’ newer models. The company is considering two alternatives for the coming year; either to give the existing product a minor facelift or to introduce a totally new model. The success or failure of these strategies will ultimately depend on the state of the economy, as is evident from the following payoff matrix. The payoffs shown represent
thousands of dollars net profit. The company considers that the probabilities of a downturn, a constant economy, and of an upturn are 30%, 50% and 20%, respectively.

**Decision Alternatives**

<table>
<thead>
<tr>
<th>State of the Economy</th>
<th>Minor Facelift</th>
<th>New Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downturn</td>
<td>10</td>
<td>-20</td>
</tr>
<tr>
<td>Constant</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Upturn</td>
<td>80</td>
<td>150</td>
</tr>
</tbody>
</table>

i) Calculate the expected value, standard deviation, and coefficient of variation for each decision alternative.

ii) Apply the expected value, coefficient-of-variation, and the maximum decision criteria to find which alternative is indicated under each criterion.

iii) Which alternative will have the greater certainty equivalent? Explain.

**GUIDELINES FOR ASSIGNMENT NO. 1**

You should look upon the assignments as a test of knowledge, management skills, and communication skills. When you write an assignment answer, you are indicating your knowledge to the teacher:

- Your level of understanding of the subject;
- How clearly you think;
- How well you can reflect on your knowledge and experience;
- How well you can sue your knowledge in solving problems, explaining situations, and describing organizations and management;
- How professional you are, and how much care and attention you give to what you do.

To answer a question effectively, address the question directly, bring important related issues into the discussion, refer to sources, and indicate how principles from the course materials apply. The student must also be able to identify important problems and implications arising from the answer.

For citing references, writing bibliographies, and formatting the assignment, APA format should be followed.
ASSIGNMENT No. 2

Marks: 100

This assignment is a research-oriented activity. You are required to obtain information from a business/commercial organization and prepare a report of about 1000 words on the issue allotted to you to be submitted to your teacher for evaluation.

You are required to select one of the following topics according to the last digit of your roll number. For example, if your roll number is P-3427180 then you will select topic # 0 (the last digit): -

TOPICS:
0. Nature and Functions of Profits
1. Use of Elasticity of Demand in Managerial Decisions
2. Time-Series Analysis
3. The Nature of Costs
4. Application of Linear Programming in Business
5. Utility Theory and Risk Aversion
6. Hedging
7. Framework of Managerial Economics
8. Demand Forecasting Techniques
9. Cost Stabilization

The report should follow the following format:
1. Title page
2. Acknowledgements
3. An abstract (one page summary of the paper)
4. Table of contents
5. Introduction to the issue (brief history & significance of issue assigned)
6. Practical study of the organization (with respect to the issue)
7. Data collection methods
8. SWOT analysis (strengths, weaknesses, opportunities & threats) relevant to the issue assigned
9. Conclusion (one page brief covering important aspects of your report)
10. Recommendations (specific recommendations relevant to issue assigned)
11. References (as per APA format)
12. Annexes (if any)

GUIDELINES FOR ASSIGNMENT No. 2:
- 1.5 line spacing
- Use headings and subheadings throughout all sections
- Organization of ideas
- Writing skills (spelling, grammar, punctuation)
• Professionalism (readability and general appearance)
• Do more than repeat the text
• Express a point of view and defend it

WORKSHOPS
The workshop presentations provide students opportunity to express their communication skills, knowledge and understanding of concepts learned during practical study assigned in assignment No. 2.

You should use transparencies and any other material for effective presentation. The transparencies are not the presentation, but only a tool; the presentation is the combination of the transparencies and your speech. Workshop presentation transparencies should only be in typed format.

The transparencies should follow the following format:
1) Title page
2) An abstract (one page summary of the paper)
3) Introduction to the issue (brief history & significance of issue assigned)
4) Practical study of the organization (with respect to the issue)
5) Data collection methods
6) SWOT analysis (strengths, weaknesses, opportunities & threats) relevant to the issue assigned
7) Conclusion (one page brief covering important aspects of your report)
8) Recommendations (specific recommendations relevant to issue assigned)

GUIDELINES FOR WORKSHOP PRESENTATION:
• Make eye contact and react to the audience. Don't read from the transparencies or from report, and don't look too much at the transparencies (occasional glances are acceptable to help in recalling the topic to cover).
• A 15-minute presentation can be practiced several times in advance, so do that until you are confident enough. Some people also use a mirror when rehearsing as a substitute for an audience.

WEIGHTAGE OF THEORY & PRACTICAL ASPECTS IN ASSIGNMENT # 2 & WORKSHOP PRESENTATIONS
Assignment # 2 & workshop presentations are evaluated on the basis of theory & its applicability. The weightage of each aspect would be:
Theory: 60%
Applicability (practical study of the organization): 40%
MANAGERIAL ECONOMICS (8522)
COURSE OUTLINES

UNIT–1:  INTRODUCTION TO MANAGERIAL ECONOMICS
Definition and Scope managerial Economics, Present-Value Analysis and the Firm’s Time Horizon, Expected-Value Analysis of Uncertain Outcomes, The Objectives o the Firm

UNIT–2:  DECISION MAKING UNDER RISK AND UNCERTAINTY
Decision Tree and Expected-Present-Value Analysis, Risk Analysis of Decision Alternatives, Adjustment for Risk in Decision Making, Search Costs and the Value of Information, Evaluation of the Decision Made,

UNIT–3:  DEMAND THEORY, ANALYSIS AND ESTIMATION

UNIT–4:  MARKET DEMAND ANALYSIS FOR DECISION MAKING
The Demand Function and the Demand Curve, Price Elasticity of Demand, Income Elasticity of Demand, Cross Elasticity and Other Types of Elasticity

UNIT–5:  ESTIMATION OF THE DEMAND FUNCTION
Introduction to Demand Estimation, Interviews, Surveys and Experiments, Regression Analysis of Consumer Demand

UNIT–6:  PRODUCTION FUNCTION AND COST CURVES
The Short-Run Versus Long-Term Distinction, Production in the Short run, Short-Run and Long-Run cost Curves

UNIT–7:  COST ESTIMATION AND FORECASTING
Short-Run Cost Estimation, Simple Extrapolation, Long-Run Cost Estimation, Regression Analysis Using Cross-Section Data, Cost Forecasting, Changes in Factor Productivities

UNIT–8:  PRICING ANALYSIS AND DECISION
The Four Basic Market Forms, Price Takers, Price Makers –No Reactions Expected, Price-Making in Oligopolies with Mutual Dependence Recognized, Pricing for Longer-Term Objectives
UNIT–9: COMPETITIVE BIDS AND PRICE QUOTES
Types of Competitive Bids and Price Quotes, Incremental Costs, Incremental Revenue, Optimal Bid Price, Competitive bidding in Practice, Makeup bid Pricing to maximize EPVC, The View from the Other Side: Optimal Purchasing, Value Analysis for Optimal Purchasing

Recommended Books
❖ Managerial Economics: Theory, Practice, and Problems, by Evan J. Douglas
❖ Managerial Economics: An Analysis of Business Issues, by Howard Davies, Pun-Lee Lam
❖ Managerial Economics: by Mark Hirschey

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