I · Population Dynamics (Clark, Chapter 1)
A. Exponential Growth Model
B. Generalized logistic Growth Models
1. Pure compensation
2. depensation
3. Critical Depensation
C. Yield-Effort Curves
1. Pure Compensation
2. Depensation (Hysteresis)
3. Critical Depensation (Irreversibility)
II. Resource Management Models (Clark, Chapters 2, 3)
A. Open-access Model
1. Gordon`s Model of the Open-Access Fishery
2. Bionomic Equilibrium
B. Sole Manager Model
1. Infinite Elasticity of Demand for
Resource (linear model)
a. Most Rapid Approach Optimal Control
Problems(MRAP)
b. Single-shot and Continuous Price
Changes
2. Finite Elasticity of Demand For Resource
(nonlinear models)
a. Econ. Interpretation of Optimal Control
Theory (Dorfman)
b. Nonlinear Fisheries Model (Clark,
Chapters 4, 6)
3. Current Valued Optimal Control
III. Non-Fisheries Applications
A. Forestry Models (Clark, Chapter 8)
1. Single-shot Management
2. Rotational Management (Faustian formula)
B. Exhaustible Resource Models (Clark, Chapter 5)
1. Perfect Competition
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3. Taxes
C. Predator-Prey Models (Clark, Chapters 6, 9)