Final Examination
(Three hours, closed books. 30% of course grade. Total of 100 points.
Write on back side of page if needed))

Your name: ___________________________________________________________________________

Part I. Definitions (Select any 5 of the following 6; 4 points each for a total of 20 points)
Define the following concepts. Use words, formulas, and graphs as needed.
1. Type I and Type II errors in targeting

2. Poverty index $P_1$

3. Lorenz curve and Gini coefficient
4. Limited liability in a loan

5. Selection bias in program evaluation

6. Dynamic incentives in micro-finance
Part II. Short questions (Select any 5 of the following 6; 8 points each for a total of 40 points)
Give short answers
1. Self-Targeting of anti-poverty programs.
   Why is self-targeting a potentially desirable approach to targeting compared to other approaches?
   Explain how a workfare program could be designed to achieve self-targeting.

2. Money lenders
   What are the advantages and disadvantages of money-lenders in providing credit to the poor (in terms of adverse selection, moral hazard, insurance)? What reasons can explain that their interest rates are often very high?

3. Randomization
   What validity check should you do for the randomization of a program assignment?
4. Payment for environmental services
   Why pay for environmental services, and how to determine how much to pay?

5. Conditional cash transfers
   To condition or not to condition, this is the question. When which?

6. Migration
   What does trade theory predict in terms of migration of unskilled labor between poor and rich countries? What should be the consequences on unskilled wages in the origin and the destination countries.
Part III. Essays (Select any 2 of the following 3; 20 points each for a total of 40 points)

1. Negative externality and policy
   Compare the relative merits of taxes, subsidies, tradable permits, and direct controls in addressing pollution problems. Illustrate by example (or plausible examples) for each of the mechanisms.

2. School subsidy program evaluation
   2.1. Briefly describe the Quetta school subsidy program.
   2.2. Describe the method used for its evaluation. Describe the problem encountered in the randomization, and how the evaluation was then done. What are the conditions under which the double-difference method is valid?
   2.3. Use the reported results in Table 3 to compute the simple difference and the double-difference estimations of the program impact. Which one do you recommend to use, why? What do you observe on the enrollment of the boys? How can this be explained?

| Table 3. Enrollment Rates Before and After the Program (percent) |
|--------------------|-----------------|--------------------|-----------------|--------------------|
| Outcome measure    | Treatment Boys  | Treatment Girls    | Control Boys    | Control Girls     |
|                    |                 |                    |                 |                   |
| Enrollment rate before program ($E_{0}$) | 56.33 | 45.29 | 51.06 | 34.86 |
| Enrollment rate in 1995 ($E_{95}$) | 64.29 | 63.93 | 49.68 | 38.37 |
| Enrollment rate in 1996 ($E_{96}$) | 76.15 | 71.30 | 43.50 | 36.20 |

Note: The age-specific analysis records the enrollment of children ages five to eight in the specified year.

3. Foreign Aid: the Sachs-Easterly debate
   3.1. Why is this debate relevant for foreign aid policy? Explain three ways in which foreign aid would change if Sachs were right, and similarly three ways in which it would change if Easterly were right.
   3.2. In this debate, identify elements that are totally irreconcilable, and elements that could be combined into a superior approach to foreign aid.