

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to follow these directions will cost you 1 point on the assignment and failure to type it will cost you 10 points.

- 1) (15 points) Explain why in a steady-state equilibrium, $c = f(k) - (n+d)k$.
- 2) (25 points each) Illustrate each event on the diagram of savings per worker and investment per worker as a function of the capital-labor ratio. Explain why the curve(s) moved as drawn.
 - A) The savings rate increases.
 - B) The population growth rate increases.
- 3) (20 points) Some economists claim that the social security program has hurt private savings. Give two reasons why the private savings rate may go down because of the existence of social security.
- 4) (15 points) The Solow Model appears to imply that the developing countries will eventually have a capital-labor ratio similar to developed countries. Clearly that does not happen. How would Solow explain that apparent paradox?