Part I. Do 3 out of 4 questions [15 points each]

1) Explain why the firm and the worker share the costs and benefits of specific human capital accumulation.

2) Show that a monopolist employs less labor than a firm in a competitive market.

3) Show graphically what happens if a law is passed requiring parental leave. Hint: put wages on one axis and job flexibility on the other. Explain everything in your graph.

4) Show graphically the substitution and income effect associated with an increase in the federal income tax rate.

Part II. Do 1 out of 2 questions [30 points each]

1) Consumers have utility function,

\[ u = U(L, X) = \beta \log(L - a) + (1 - \beta) \log(X - b) \]

where \( L \) is leisure and \( X \) is potatoes. Each consumer has a budget constraint,

\[ V + w(1 - L) \geq pX. \]

a) Find the reservation wage of each consumer.
b) Find the supply curve of each consumer.
c) Find the economy-wide supply curve if half of the consumers have \( V = 0 \) and half have \( V = c \).

2) Write down a model of a family making decisions about caring for children and show how family behavior changes when:

a) the husband’s wage increases;
b) the cost of child care increases;
c) the number of children increases.