Problem Set VIII Econ 350, Winter 2021 James J. Heckman Due March 12th, 2021 This draft, March 5, 2021

- 1. Show how hedonic models can be used to derive the mapping of skills to tasks in the labor market where tasks emerge as a market-determined phenomenon. How do firms with heterogeneous technologies and workers with heterogeneous preferences and endowments sort? Explain how a shift in the endowment of skills affects equilibrium maps of skills.
- 2. Review the evidence on the quantitative importance of credit market constraints in explaining the slow response in educational attainment in the U.S. in reaction to rising skill prices. How important (quantitatively) are credit markets in explaining inequality in schooling and in intergenerational immobility and the observed trends?
- 3. Under what conditions, if any, is it economically optimal (output maximizing) to invest relatively more in social programs in the early years of children born into disadvantage as opposed to investing more in children born into advantage? Should society invest more in the initiallyadvantaged at later stages of the life cycle? Give precise conditions. What is the proper measure of early life advantage?
- 4. What role does the "neutrality assumption" play in the Ben Porath model? What effect on life cycle investment and income growth does a

high initial endowment play in that model? Distinguish the ability to earn from the ability to learn.

- 5. In a model of life cycle occupational choice with risk-neutral agents, why is it optimal for them to try out risky occupations first? (Assume that all occupations have, *ex ante*, the same expected income and returns are uncorrelated across occupations.)
- 6. For the same amount of expenditure, which strategy is most effective for promoting child development among disadvantaged families?
 - (a) Cash grants to families to overcome credit constraints
 - (b) Targeted interventions focusing on child learning (home visiting; trips to child care centers)
 - (c) Providing information to the parents about child development profiles and possibilities

Review the evidence on each strategy. (Rule out packages of strategies as an admissible answer, unless you can justify the appropriate weight on each component of the package.)