**Exam I Preparation Worksheet**

1. i) Express an equation that shows how personal saving is typically estimated;

ii) What problems emerge in accurately estimating saving this way?

2. i) Express a basic equation for measuring the aggregate Price Level

ii) How does the measurement of a major component, such as housing, influence the Price Level?

iii) What problems emerge in the measurement of housing?

3. i) Express the household utility and budget constraints in the Prescott growth model;

ii) Briefly explain the the terms that makeup the utility function;

iii) Briefly explain the terms that makeup the household budget constraint in the Prescott model

iv) Using the basic equations, express why work hours between Europe and the U.S. diverged after the 1970s.

4. i) What are the key exogenous influences on long run growth in the Prescott model?

ii) How is the Solow Growth Model related to the Prescott model and what are the key influences of growth in it?

5. i) What are the major influences on cross-country living standards and growth based on Barro and Barro and Grier?

ii) What is “convergence” and what is the evidence for or against it?

iii) What is the “identification problem” in empirical study and why is it a problem in cross-country growth studies?

iv) Give an example of how Acemoglu tried to solve the identification problem from either “Unbundling Institutions” or “Reversal of Fortune”

6. i) How is the Prescott growth model modified to become “real business cycle model” of short run fluctuations?

ii) How does the ISLM model simplify a Prescott type growth model?

iii) Distinguish the key differences in exogenous influences in Neoclassical/RBC type models versus Keynesian type models

7. i) What are the major U.S. recessions since 1969?

ii) How does a deterministic trend differ from a stochastic trend and why does this make a difference for computing an estimate of cyclical GDP (output gap)?

iii) Provide two basic equations that illustrate what Hamilton is showing in what happens to unemployment in and out of recessions

8. i) Show an equation for computing percent changes in GDP computed?

ii) What is the primary measure used to measure cross country living standards and growth in them?

iii) What are current values of key economic performance measures?

9. i) Use two equations to illustrate the basic setup of a VAR

ii) Explain the reasoning behind using VARs to examine macroeconomic outcomes

iii) What is an AR model; what difference is there if the coefficient is 0.3 versus 0.9?

iv) If an AR term is 1.0 or very close to it, how should you handle that variable for further data analysis?