ECO 318, Practice Exam

Instructions: Answer all parts of all questions. For non-technical parts, think 1-2 paragraphs as a rough guideline. I will replace your worst scoring question with your presentation grade if that benefits you. You may thus decide to leave one question blank.

1. General, Relatively Non-Technical Questions.

a. Which model has better microfoundations: The Solow Model or the Infinite Horizon Model?

b. What is the most significant difference between the assumptions of Evans, Honkapohja, and Romer (1998) and the other growth models seen in class?

c. Evaluate the following statement "A sunspot is as likely to increase consumption as decrease it. Ensuring that sunspots do not affect the economy should not therefore be a concern for monetary policy."

d. Under what conditions can the monetary authority achieve the optimal allocation in the New Keynesian Model. Are these assumptions plausible?

2. Monetary Policy

Consider the model of Gali Chapter 2. Suppose that the monetary authority uses the following policy rule:

$$i_t = \rho + \phi_1 \pi_t + \phi_2 E_t[\pi_{t+1}] \tag{1}$$

a. Obtain a condition for determinacy of equilibrium.

b. How does the choice of ϕ_1 affect output and employment.

c. Now suppose that the monetary authority pursues this same rule, except that it does so in the context of the model from Chapter 3. Discuss (you likely lack time to derive anything formally) how the choice of policy parameters might impact the output gap.

3. Growth

Recall the Solow Model as developed in class. Now suppose that the aggregate production function takes the following functional form: $f(k) = k_t^2$.

a. Represent the model as a single difference equation.

b. Solve for the model's non-zero steady state.

c. How does the stability of this model compare to the baseline version presented in class?