1. In the context of the equilibrium model of production with flexible prices (e.g. the real business cycle model), show how changes in $A_t$, $A_{t+1}$, $G_t$, and $G_{t+1}$ affect the price level, $P_t$.

2. Describe in some detail the “stylized business cycle facts” as presented in class.

3. In our baseline model of production, write down the maximization problem of a hypothetical “social planner” who desires to maximize the utility of the representative household subject to the scarcity that the economy as a whole faces. Discuss the main way in which this problem differs from the competitive equilibrium setup. Find the first order conditions characterizing the solution to the planner’s problem, and compare them to the first order conditions of the competitive equilibrium solution.

4. In the context of the real business cycle model, what is the only exogenous variable that can be the main source of business cycle fluctuations? Explain why? Are declines in that exogenous variable welfare improving or welfare reducing? Should policy react to changes in this exogenous variable? Why or why not?

5. What is the primary friction that differentiates the New Keynesian model from the real business cycle model? Does that friction strike you as reasonable and intuitive?

6. Graphically derive the LM curve and define it in words.

7. Graphically show how the labor market works in the New Keynesian model. In words discuss how this differs relative to the real business cycle model.

8. Graphically analyze the effects of exogenous increases in $A_t$, $A_{t+1}$, $G_t$, $G_{t+1}$, and $\pi_{t+1}$ in the New Keynesian model, assuming that the money supply is exogenous.

9. Repeat the graphical analysis from the preceding question using the graphical apparatus of the New Keynesian framework, but assuming that prices are flexible (e.g. as in the notes, use these graphs to show how the exogenous changes would affect the endogenous variables when prices are flexible, which effectively makes the position of the LM curve endogenous).

10. In words, describe how a welfare-maximizing central bank ought to conduct monetary policy in the context of the New Keynesian model.

11. Describe in words and with graphs how the zero lower bound affects the New Keynesian model. Will shocks to demand (shifts of $Y^d$) have bigger or smaller output effects when the zero lower bound binds?
12. Describe the motivation for including a risk premium shock, \( \theta \), into our model. How does this relate to the Great Recession period? Graphically show how an increase in \( \theta \) ought to affect the economy in the New Keynesian model (both with and without the zero lower bound binding).

13. In words, map the objectives of the “non-standard” monetary policy of 2008 onward into our model.

14. Discuss why fiscal stimulus (an increase in \( G_t \)) might (i) be welfare-improving when the zero lower bound is binding) and (ii) might have bigger effects when the zero lower bound is binding.

15. Speculate, in words and with graphs, on why ticket prices for the BCS national championship game fell after Alabama defeated Georgia in the SEC Championship game.