Examen Advanced Macro-Economics 1

QUESTION 1: rational expectations
Given:
System of equations, describing the Economy
- SRAS
- Equilibrium in the goods market
- Monetary policy
- demand shock: z(t) = a z(t-1) + x(t)
- supply shock: s(t) = b s(t - 1) + c(t)

Agents have rational expectations (I don't remember the assumptions)
assume c(t) and x(t) zero, because not observable

Questions:
a. compute the forecasted inflation
b. compute the outputgap
c. impulse response function when supply shock in period 0 (before period zero, economy in equilibrium)

QUESTION 2: VAR
a.
b.
c.
d. Are the results plausible?

QUESTION 3: Taylor rule
a. Explain the Taylor principle and the assumptions (??)
b. What if the assumption is violated. Explain what happened in from the '70 onwards.

QUESTION 4: some questions about the Long Run
a.
b. something about conditonal and absolute convergence
c. something about the adjustment of speed
d. What is growth accounting and say something about the evidence resulting from the growth accounting exercises

QUESTION 5: lifetime utility maximization
a. Why is the Social planners optimum equal to the Decentralized optimum (or why can it be solved from the point of view of the Social planner)
Write down the Social planners maximization problem
b. Write down the FOC
c. Solve it and do we have a steady state. Why not? Transform it to have a steady state
d. Phase diagram
e. Growth (??)