Below is a sample list of questions that may be asked on the exam. Usually answering questions requires constructing a sound economic argument, i.e. not only answering what would likely happen, but **why** do you think so. You may supplement your answers with graphs. It is not necessary to provide mathematical derivations.

1. Basing on the type of two-period consumer optimization problems we have considered, describe and justify the likely effects of the following changes on agents’ first and second period consumption, as well as savings between period one and two:
   1. Increase in first period income
   2. Decrease in second period income
   3. Decrease in the real interest rate
2. In an economy a large fraction of two-period living consumers is borrowing-constrained (they would like to borrow but cannot). Basing on the two-period consumer optimization problem describe and justify the likely effects of the following policy changes on the aggregate consumption in period one in the economy:
   1. Fiscal stimulus: a decrease in taxes in period one (while expecting a tax raise in period two)
   2. Monetary stimulus: a decrease in the real interest rate
   3. Redistribution: a tax on asset income which is then redistributed equally among all citizens
3. Solow model predicts that certain variables impact the level (and growth rate) of income per capita. Policies can potentially influence those variables, which are treated by the Solow model as given. Using the Solow model predict the effects of the following policies on level and growth path of income per capita:
   1. Children benefits financed via income taxation
   2. Tax incentives designed to increase the savings for retirement
   3. Tax breaks for firms engaging in R&D
4. You read in a newspaper that some of the developing countries risk getting stuck in a “middle income trap”, which is described as a situation where the country stops growing (or grows slowly) after reaching a certain level of per capita income. You plan to test which factors are associated with the “middle income trap”. Basing on your knowledge of the growth models and economic intuition, which variables (and why) would you include in your econometric analysis?
5. A country’s government plans to increase the revenue from taxation. Basing on the standard Ramsey model (with constant labor supply) discuss the likely effects of changes in the following taxes on income, consumption and capital per capita:
   1. Increase in consumption tax
   2. Increase in asset income tax
   3. Increase in labor income tax
6. Assume that in your country newly discovered drugs enjoy 20 years of patent protection. Activists in your country are campaigning for the abolition of the patent protection on drugs so that generic drugs can be produced and the poor could afford them. Politicians are suggesting the following three ways to change the current situation. Evaluate the likely effects of each of those changes:
   1. Shortening patent protection period to 10 years.
   2. Subsidies lowering effective drug prices that buyers pay.
   3. R&D grants for pharmaceutical companies lowering the cost of invention.
7. In many developing countries patent protection is weak. This makes imitation less costly in those countries but innovation comes with a risk of very fast erosion of the monopoly power. Consider the following two edge cases: either patent protection is nonexistent, meaning that any producer can freely imitate a foreign (or domestic) product or patent protection is very strong and only the original inventor (either foreign or domestic) can produce this type of good. Which of those strategies would you advise for countries at different stages of development? Propose a criterion for switching between the strategies.
8. Basing on the search and matching model of the labor market, describe the likely outcome of the following policy changes on the steady state (balanced growth path) unemployment rate and worker wages:
   1. Establishing a country-wide database of all open job positions (vacancies) and the CVs of all unemployed
   2. Increasing unemployment benefits
   3. Increasing workers’ bargaining power through labor unions legislation
9. Assume the economy works as described by the New Keynesian model. Consider a situation when output gap is positive, i.e. current output is above the flexible-price level of output. In this situation, are firms hiring more or less labor than they would do in the flexible price case? What pressure does this put on the price level and output as the economy transitions towards the steady state?
10. In the search and matching model of the labor market we abstracted from the worker’s traits. Suppose now that the youngest workers enter the labor market initially unemployed.
    1. Explain why the youth unemployment rate is usually higher that the average unemployment rate.
    2. How would the unemployment rate behave when more young people entered the labor market than usual?
    3. In a recession the job finding probability falls. Which unemployment rate would increase more (in percentage points): youth unemployment rate or average unemployment rate?
11. In the basic Real Business Cycles model an increase in government consumption decreases welfare. First, for any given level of GDP a smaller fraction of it goes to private consumption. Second, for any given level of consumption more time has to be spent working, creating higher labor disutility. Most people tend to think though that higher government expenditures, especially during recessions, are beneficial for the citizens, as they help in lowering the unemployment rate. Can you explain the difference between those two standpoints? What is the RBC model missing?
12. Often in the media one can hear or read that “GDP growth this quarter was driven by higher consumption expenditures”. Through which channel an increase in consumption demand can increase GDP growth rate? Can this effect be permanent?