Department of Economic Science

IISER Bhopal

Re-Examination

Principle of Economics 2 - ECO 102

Time: 3 Hours | Total Marks: 100

Question 1 (20 marks). Assume in country Y, the average marginal propensity to save is 0.2. When the aggregate income is zero, consumers spend 50 to consume. Derive the saving function and consumption function for this country. What happens to consumption when when the propensity to save decreases to 0.1? Explain your answer and show this on the graph.

Question 2 (20 marks). We argued that saving and spending behavior depends in part on wealth (accumulated savings and inheritance), but our simple model does not incorporate this effect. Consider the following model of a simple economy: $C = 50 + 0.8Y + 0.1W$

$$\begin{aligned} I &= 200 \\ W &= 500 \\ Y &= C + I \\ S &= Y - C \end{aligned}$$

If you assume that wealth (W) and investment (I) remain constant (we are ignoring the fact that saving adds to the stock of wealth), what are the equilibrium levels of GDP (Y), consumption (C), and saving (S)? Now suppose that wealth increases by 100 percent to 1000. Recalculate the equilibrium level of Y, C and S. What impact does wealth accumulation has on GDP? Many were concerned with the large increase in stock values in the late 1990s. Does this present a problem in the economy? Explain.

Question 3 (20 marks). In Solow model, describe the effect of increase in saving rate on economic growth and output per worker. In Romer model, describe the effect of increase in the fraction of labor which is devoted to research and development. Suppose the rate of population growth increases from n_1 to n_2. What is the effect of this population growth in a Solow model?

Question 4 (20 marks). Explain the effect of reduction in the long term capital gain tax rates on economic growth.

Question 5 (20 marks). Renewed tensions in the Middle-East threaten to push the oil price upwards. What impact might a new increase in oil price have on the aggregate price level and on the real GDP in your country? Illustrate your answer with aggregate demand and aggregate supply curves. What could your central bank do, if it desired to maintain aggregate output as its actual level?