Ex/ PG/ECO/2.2/34/2017

Master of Arts Examination, 2017

(1st year, 2nd semester)

Economics

Macroeconomics II

Time: Two hours **Full Marks: 30**

Answer any two from following three questions.

1. Consider the model developed by R.E Lucas (1988).
   (a) Find out the economic growth rate in that model in competitive economy.
   (b) What is the contribution of this model to modern growth theory?
   (c) Why does the growth rate obtained in competitive economy in this model differ from that obtained in command economy? 10+3+2

2. Consider a standard Ramsey model in command economy set up.
(a) Derive Euler equation. Interpret it.
(b) What is the transversality condition? Interpret it.
(c) Using the phase diagram discuss the dynamic behavior of the model. 3+3+1+3+5

3. Consider an economy with the following production function :
   $Y=B K^{\alpha} L^{1-\alpha}$
   Where $B=b(K/L)^{\beta}$, $\alpha+\beta=1$
   Here B is the knowledge/ technology in the economy that depends on capital per person, K is the physical capital stock of the economy and L is the labour force. It is assumed that the labour force is constant and output over consumption is accumulated as physical capital. In this model, per capita capital holding has a positive external effect on the production function of an economy. The underlying idea is that knowledge is a public good. Once discovered, piece of knowledge spills over instantly across the whole economy.
   (a) Find out competitive economy growth rate and command economy growth rate.
   (b) Discuss about the transitional dynamics of this model. 10+5