ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Economics)

Course: Advanced Macroeconomics (2701)

Level: M. Phil. Economic   **Semester: Spring, 2013**
Total Marks: 100

ASSIGNMENT No. 1
(Units 1–4)

Q.1 What are theories of fluctuations? Discuss a baseline real business cycle model in detail. Also solve the model mathematically. (20)

Q.2 Review the text book Keynesian model of aggregate demand. Also extend the IS – LM model to the case of an open economy. (20)

Q.3 Discuss the need for real rigidity under New Keynesian paradigm in detail. (20)

Q.4 Consider a firm that produces output using a Cobb-Douglas combination of capital and labour (20)

$$Y = K^a L^{1-a} \qquad\qquad 0 < a < 1$$

Given P, Y, W and rK are constant.

a) What is the firm's choice of L.?
b) Given this choice of L, find out the profit function.
c) Find the first- order condition for the profit maximizing choice of K. Is the second- order condition satisfied?

Q.5 Consider the model of investment in section $(8.2 – 8.5)$ (Romer 2001). Describe the effects of each of the following changes on $k = o$ and $q = o$ loci, on k and q at the time of the change, and on their behaviour overtime. In each case assume that k and q are initially at their long run equilibrium values: (20)

a) A war destroys half of the capital stock.

b)   The government takes returns from owing firms at a rate t.
c)   The government taxes investment, specially, firms pay the government r for each unit of capital they acquire, and receive a subsidy of r for each unit of disinvestments.

ASSIGNMENT No. 2

(Units 6–9)   **Total Marks: 100**

Q.1 Kydland and presscott (1977) show that the inability of policy makers to commit themselves to low inflation policy can give rise to excessive inflation despite the absence of long run trade- off between output and inflation. Explain.   (20)

Q.2 Workers are likely to exert more effort at a given wage when unemployment is higher and exert less effort when wages paid by other firms is higher. Substantiate the statement in the light of general model of efficiency wage?   (20)

Q.3 Let wage in union sector is given by expression $W_u = (1 - \mu) W_n$ and in non-union sector it is $W_n = (1 - b\mu) W_a/1- \beta$. Where W_a is average wage and $W_a = f W_u + (1-f) W_n$. Using wage efficiency model find equilibrium unemployment $U°$ and also show that by what proportion is the cost of effective labour higher in union sector than non union sector if $\mu = f = 0.12, \beta = 0.04, b = 1$?   (20)

Q.4 Discuss the framework and assumptions of research and development models. Also explain the dynamics of knowledge and capital by giving its different cases.   (20)

Q.5 Show the impact of change in saving rate on output and consumption in the Solow growth model. Also give a quantitative implication for the effect on output in the long- run.   (20)