

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF MASTER OF SCIENCE IN  
ECONOMICS

MSEC 822: ADVANCED MACRO ECONOMICS II

STREAMS: MSEC

TIME: 3 HOURS

DAY/DATE: TUESDAY 05/12/2017

2.30 P.M. – 5.30 P.M.

---

INSTRUCTIONS:

- QUESTION ONE IS COMPULSORY
- ANSWER ANY OTHER THREE QUESTIONS

**QUESTION ONE (15 MARKS)**

- (a) By use of a diagram, explain equilibrium in the Solow growth model.
- (b) Show the effect of a long run change in saving rate in Solow model
- (c) Given that  $\sigma > 0$  and basing your arguments on New growth Theory, show and explain by use of phase diagrams how the growth rate of knowledge ( $A$ ) behaves if  $0 < \sigma < 1$ ,  $\sigma > 1$  and  $\sigma = 1$ , assuming no capital. [7 marks]

**QUESTION TWO (15 MARKS)**

- (a) Derive the money multiplier and explain clearly the determinants of money supply determined. [5 marks]
- (b) Theories of Real Business Cycle pay more attention on the propagating mechanisms that are likely to amplify the shocks than the shocks themselves. Explain. [7 marks]
- (c) Define seigniorage and explain its relevance in explaining hyper inflation. [3 marks]

**QUESTION THREE (15 MARKS)**

- (a) What do you understand by Ponzi game? Explain the possibility of a government running Ponzi games to manage budget deficit indefinitely. [3 marks]
- (b) What do you understand with Tax-smoothing? Explain tax smoothing under certain. [8 marks]
- (c) What are the cost of budget deficits. [4 marks]

**QUESTION FOUR (15 MARKS)**

- (a) Using the Barneault-Tobin model, show and explain how the household determines the optimal money balances to hold. [5 marks]
- (b) Using Prescott model show that discretionary monetary policy can give rise to inefficiently high inflation. [6 marks]
- (c) Explain the effects of inflation in the economy and how it can be controlled.[4 marks]

**QUESTION FIVE (15 MARKS]**

- (a) Given that a firm seeks to maximize real profits=  $\pi = Y - wL$ , and that  $Y = F(eL)$  and  $e = e(w)$ , where  $Y$  is the real output,  $w$  is the real wage,  $L$  is the amount of labour it hires and  $e$  is workers effort. Show that at the optimum, the elasticity of effort with respect to wage is 1. [9 marks]
- (b) Given that firms profits are given by  $\pi = AF(L_1 + L_0) - w_1L_1 - w_oL_0$  and that insiders utility depends on their wage,  $U_1 = U(w_1)$ , show that according to insider – outsider model, employment is chosen to equate the marginal product of labor with the wage.[6 marks]
-