



**DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY
UNIVERSITY EXAMINATION ACADEMIC YEAR 2014/2015**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
MASTER OF SCIENCE IN ECONOMICS**

BEC 4101: MACROECONOMIC THEORY I

DATE: 21ST DECEMBER 2014

TIME: 10.00AM-1.00PM

Instructions:

Answer any FOUR questions. All questions carry equal marks.

QUESTION ONE

QUESTION ONE (25 MARKS).

Discuss using specific examples from your country how the following factors determine investment decisions;

- | | |
|------------------------------|----------|
| a) Credit availability. | (5marks) |
| b) Foreign exchange rate | (5marks) |
| c) Public investment | (5marks) |
| d) Macroeconomic instability | (5marks) |
| e) The debt burden effect | (5marks) |

QUESTION TWO (25 MARKS).

Compare and contrast (a) adaptive expectations; and (b) rational expectations.

Discuss the policy implications of the short run Phillips curve under these two types of expectations.

QUESTION THREE (25 MARKS).

Use the Mundell – Fleming model to compare and contrast the effects of (i) fiscal policy; and (ii) monetary policy under (a) a fixed exchange rate; and (b) a flexible exchange rate, assuming imperfect capital mobility.

QUESTION FOUR (25 MARKS).

Consider the following production function of the Cobb – Douglas type;

$$Y_t = AK_t^\alpha L_t^\beta$$

- a) What restrictions should be imposed on α and β for this function to exhibit constant returns to scale. (2marks)
- b) Define the Inada conditions which is also conventionally made in the context of this model. (2marks)
- c) Assuming that (a) holds, show that: $\frac{\partial Y_t}{\partial t} = Y_t' = \alpha K_t' + \beta L_t'$.

Further, show that the shares of K and L (assuming that perfect competition holds) are identical to the respective elasticities. (12marks)

d) Suppose that the following data are provided;

$L'_t = 1.5\%$, $K'_t = 3.5\%$, $\alpha = 0.25$, $\beta = 0.75$, and $Y'_t = 2.5\%$

Are labour(L) and capital(K) able to explain total growth? If not, the difference is called The “solow residual” or as E. Denison said: “the measure of our ignorance”. Also, calculate the solow residual. (5marks)

e) How does the Solow residual related to the assumption of the constant returns to scale and how do the theories of endogenous growth contribute to an explanation of this residual. (4marks)

QUESTION FIVE (25 MARKS).

The recent analytical and empirical literature on consumption and saving behaviour in developing economies has offered various extensions to standard permanent income and life – cycle models. Explain the important additional factors that have been found to be relevant in understanding consumption and saving in these economies.

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