MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING BANKING AND FINANCE

FOURTH YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND FINANCE

EET 401: MACROECONOMIC THEORY IV

DATE: 7/8/2019 **TIME:**

INSTRUCTIONS:

- **(i) Answer question one (Compulsory) and any other two questions**
- **(ii) Do not write on the question paper**
- **(iii) Show your workings clearly**

QUESTION ONE (COMPULSORY)

a) Differentiate between Absolute income hypothesis and Relative income hypothesis **(10 marks)**

b) Explain the transactions demand for money theory **(10 Marks)**

c) Explain five methods which the government can use to finance budget deficits **(10 Marks)**

QUESTION TWO **(20 MARKS)**

a) Explain Harrod Domar's theory of economic growth **(10 marks)**

b) Derive the money multiplier and explain the determinants of money supply **(10 Marks)**

QUESTION THREE **(20 MARKS)**

a) Given the following intertemporal optimizing model of consumption patterns:

$$\max_{c_t} \sum_{0}^{T} \frac{In\ c_t}{(1+\delta)^t},$$

Subject to the constraint that

$$\sum_{0}^{T} \frac{c_t}{(1+r)^t} = \sum_{0}^{T} \frac{y_t}{(1+r)^t}.$$

Show that whether consumption rises, falls or remains constant over time depends on whether the market rate of return is larger or smaller than the individual's discount rate **(10 Marks)**

b) Explain using the neoclassical growth Model how the following changes affect variables in the steady-state:

a) A decrease in the savings rate

b) An decrease in Population growth **(10 Marks)**

QUESTION FOUR **(20 MARKS)**

a) Given the following production function

$Y = Af(K, L)$

Where: *A* is the level of technology; K represents units of capital; L represents units of labour.

Let (1-θ) and θ be weights equal to labour's share of income and capital's share of income, respectively.

Obtain the Solow residual and state the three key determinants of output growth according to Solow. **(10 Marks)**

b) Explain using the quantity theory of money and fishers equation the relationship between money supply and inflation **(10 Marks)**

QUESTION FIVE **(20 MARKS)**

Given that a firm faces a production function of the form $y_t = y_t(N_t, K_t)$. If the firm maximizes the present value of future flows of profit streams subject to a technological constraint given by the capital evolution equation as $K_{t+1} = K_t + i_t - \delta K_t$.

Where y – Output
N – Labor units
K – Capital stock
i – Investment
δ – Depreciation rate.

Required

i. Derive the expression for the flexible accelerator model of investment demand. **(12 marks)**

ii. Given a Cobb Douglas production function of the form $y = AK^{\alpha}L^{1-\alpha}$. Show the corresponding investment demand function. **(8 marks)**