



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
MASTER OF SCIENCE IN ECONOMICS**

COURSE CODE: ECO 8204

COURSE TITLE: DEVELOPMENT ECONOMICS

DATE: 9/2/2024

TIME: 1430-1730 HRS

INSTRUCTIONS TO CANDIDATES

ANSWER ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE

According to the neoclassical growth model, how would each of the following affect consumption per worker in the long run (that is, in the steady state)? Explain.

- a. The destruction of a portion of the country's capital stock in a war. (4 Marks)
- b. A permanent increase in the rate of immigration (which raises the overall population growth rate). (4 Marks)
- c. A permanent increase in energy prices. (4 Marks)
- d. A temporary rise in the saving rate. (4 Marks)
- e. A permanent increase in the fraction of the population in the labour force (the population growth rate is unchanged). (4 Marks)

QUESTION TWO

This problem adds the government to the growth model. Suppose that a government purchases goods in the amount of g per worker every year; with N_t workers in year t , total government purchases are gN_t . The government has a balanced budget so that its tax revenue in year t , T_t , equals total government purchases. Total national saving S_t is

$$S_t = s(Y_t - T_t),$$

where Y_t is total output and s is the saving rate.

- a. Graphically show the steady state for the initial level of government purchases per worker (7 Marks)
- b. Suppose that the government permanently increases its purchases per worker. What are the effects on the steady-state levels of capital per worker, output per worker, and consumption per worker? Does your result imply that the optimal level of government purchases is zero? (8 Marks)

QUESTION THREE

- a. Planning is said to be more than just the formulation of quantitative economic targets. It is often described as a 'process'. What is meant by the planning process and what are some of its basic characteristics? (7 Marks)
- b. Some forms of economic planning are said to exist in all contemporary economies. Compare and contrast the main aspects of planning in so-called capitalist and socialist economies. How does development planning in most Third World nations compare with these two models? (8 Marks)

QUESTION FOUR

- a. Explain and comment on some of the major arguments or rationales, both economic and non-economic, for planning in Third World economies. (5 Marks)
- b. An economy is in a steady state with no productivity change. Because of an increase in acid rain, the rate of capital depreciation rises permanently.
- i. According to the neoclassical growth model, what are the effects on steady-state capital per worker, output per worker, consumption per worker, and the long-run growth rate of the total capital stock? (5 Marks)
- ii. In an endogenous growth model, what are the effects on the growth rates of output, capital, and consumption of an increase in the depreciation rate of capital? (5 Marks)

QUESTION FIVE

a). Over the past 20 years, an economy's total output grown from 1,000 to 1,300, its capital stock has from 2,500 to 3,250, and its labour force has increase from 500 to 575. All measurements are in real term .

i). assuming that $a_k = 0.3$ and $a_n = 0.7$.

ii). assuming that $a_k = 0.5$ and $a_n = 0.5$.

Calculate the contributions to economic growth of growth in capital, labour, and productivity (10 Marks)

b. Discuss Demographic transition Theory of Population and its applications in third world countries. (5 Marks)

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