

UNIVERSITY OF FORT HARE

AGE 321

DEGREE EXAMINATIONS

NOVEMBER 2024

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Time: 3 HOURS

Subject: AGRICULTURAL DEVELOPMENT PLANNING

Marks: 100

This question paper consists of 6 pages including the cover page

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INSTRUCTIONS

Please answer each of the questions below. Show your work and explain your reasoning.

PART 1

[20 marks]

For each question select one option (i.e. a, b, c or d). Each correct answer is worth 2 marks.

Question 1: The idea that agricultural production keeps pace with population growth *because it is stimulated* by population growth was proposed by which thinker?

- a) W. Arthur Lewis
- b) Thomas Malthus
- c) Karl Marx
- d) Ester Boserup

Question 2: Karl Marx welcomed capitalism because:

- a) Capitalism would lead to widespread discontent among workers, which would inevitably lead to a communist revolution
- b) Capitalism is highly productive and thereby allows citizens to achieve a higher quality of life
- c) Capitalist development goes hand-in-hand with democratic systems of government.
- d) Capitalism is based on highly efficient technological progress.

Question 3: In W. Arthur Lewis's dual sector model, what characterises the subsistence sector?

- a) High productivity and labour shortages
- b) Capital intensive production
- c) Low productivity and surplus labour
- d) Rapid technological change

Question 4: According to C. Peter Timmer's Agricultural Transformation, what typically happens to agriculture's share of GDP as an economy develops?

- a) It declines relative to other sectors
- b) It increases steadily
- c) It remains constant
- d) It fluctuates unpredictably

Question 5: What is a "consumption linkage" in regional growth models?

- a) Increased farmer spending stimulating local businesses
- b) Farmers purchasing more agricultural inputs
- c) Export of agricultural products
- d) Government subsidies to farmers

Question 6: According to Timmer's Agricultural Transformation, what often happens to farm sizes as agriculture modernises?

- a) Farm sizes remain constant

- b) All farms become very small
- c) Average farm size increases
- d) Farm sizes become more uniform

Question 7: In Boserup's model, what is the final stage of crop farming intensification?

- a) Multiple cropping
- b) Forest fallow
- c) Bush fallow
- d) Short fallow

Question 8: Which type of linkage in regional growth models refers to the processing of agricultural products?

- a) Backward production linkage
- b) Consumption linkage
- c) Fiscal linkage
- d) Forward production linkage

Question 9: According to Timmer, what often happens to the number of farms in a country as agriculture modernises?

- a) The number of farms increases
- b) The number of farms decreases
- c) The number of farms remains constant
- d) All farms become cooperatives

Question 10: According to Timmer's Agricultural Transformation, what typically happens to agricultural employment as an economy develops?

- a) It increases steadily
- b) It declines absolutely and as a share of total employment
- c) It remains constant
- d) It fluctuates randomly

PART 2

[16 marks]

Question 11

[5 marks]

In the context of development planning, explain the difference between a 'project' and a 'programme'.

Question 12

[11 marks]

In the context of development planning:

12.1 Define and then contrast the 'blueprint approach' versus the 'process approach'. [5 points]

12.2 Identify advantages and disadvantages of each approach. [6 points]

PART 3

[24 marks]

Question 13

[24 marks]

Select any four of the case studies listed below. For each of those that you select, you must:

- i) Briefly describe what the case study involved or was about (eg where, when, what...).
- ii) Briefly explain what was positive or favourable about it.
- iii) Briefly explain what was negative or problematic about it.

- Green Revolution in India
- Muda Irrigation Scheme in Malaysia
- Agricultural collectives in 20th century China
- Fast Track Land Reform in Zimbabwe
- Bt Maize
- 'Factory farming' of cattle and poultry
- Magwa Tea Estate
- Kenya's Swynnerton Plan of 1954
- Betterment Planning (South Africa)
- South Africa's agricultural development corporations
- Citrus sector development in Syria, 1970 to 1998
- China's personal responsibility system

- South African Marketing Boards
- 'Homeland Irrigation Schemes' in South Africa
- Cerrado Development Programme (Brazil)

PART 4

[40 marks]

The Eastern Cape's Department of Agriculture is concerned about unemployment in rural areas, so is considering establishing a 300-hectare macadamia orchard in the former Ciskei. Some excellent land is identified near a village called Mxhalanga, about 15 kilometres north of Qonce, where some small-scale farmers grow maize.

Macadamia trees produce delicious nuts which are mostly exported. It costs approximately R60 000 to establish one hectare of macadamia in South Africa. Nuts may appear after 2 or 3 years of orchard establishment, but it can take 6 years for the yield to be significant, and up to 11 years to reach the point where revenues exceed running costs. In addition to the orchard establishment, the Department wants to spend R4 million on processing facility. It is anticipated that the project will create 50 full-time jobs in the first year, after which there will be 10 full-time jobs, and 70 to 100 seasonal jobs during harvesting season. Although these jobs would not be sufficient to ensure that everyone in the area is employed, they would make a big difference in this impoverished area.

You are a junior economist at the Department, and are part of a team that has been tasked by the Department to help it decide whether or not the initiative should be undertaken. You are determined to do good work, because you can't afford to lose this job. Among other things, you recently purchased your first car, and you can barely cover the repayments, because the inflation-adjusted interest rate is about 9.4%.

Question 14

[10 marks]

As part of the broader effort to determine whether the initiative makes sense, you conduct a benefit cost analysis where you assume a 25-year time frame and a 5% discount rate.

After some long days and late evenings at the office where you work out all of the relevant benefits and costs, you estimate that the Present Value of the costs amounts to R74.8 million, and the Present Value of the benefits is R79.1 million.

What does your analysis suggest as to the desirability of the macadamia initiative? Explain your reasoning in detail.

Question 15**[10 marks]**

Your team is well aware that it is not sufficient to conduct a benefit-cost analysis, in fact you are preparing a detailed feasibility study.

List the main headings of your feasibility study.

Question 16**[10 marks]**

It has been decided by the Department's senior management that the team appointed to carry out the feasibility study is multidisciplinary.

Explain why this is a good idea (4 points), and list *and justify* at least three different disciplines (or types of expertise) that should be included in this particular team (6 points).

Question 17**[10 marks]**

The Department decides to go ahead with the macadamia project. There is a formal launch of the project shortly after the processing facility is completed, and many members of the community come to share in the celebrations. However, two weeks later, in the dead of night, the processing facility is burnt down by persons unknown.

What might have happened, and what could the project team have done in order to reduce the possibility of such a tragedy?