

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

Internal Examiners
Professor M Aliber
Dr AR Onomu
Dr N Mujuru

External Examiners
Professor M. Antwi

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: Which one of the following correctly represents Rostow's stages of growth theory?

- a) Societies / countries gradually accumulate capital and expertise until such time as they can be regarded as developed.
- b) Societies / countries must invest simultaneously in agriculture and manufacturing in order to progress economically.
- c) Societies / countries must emphasis international trade above everything else.
- d) Societies / countries develop by means of graduating through a series of distinct stages.

Question 2: According to Lewis's model,

- a) The manufacturing sector is the original sector, but it creates an opportunity for the agricultural sector to emerge and grow.
- b) Agriculture is the original sector, but it creates an opportunity for the modern sector to emerge and grow.
- c) The agricultural sector and manufacturing sector emerge simultaneously and grow symbiotically.
- d) Services are initially the most important sector because it creates capital which can be invested elsewhere.

Question 3: Which of the following theories embraced the concept of unequal exchange between the 'core' and the 'periphery'?

- a) The dependency / structuralist perspective
- b) Marx's stages of growth theory
- c) Rostow's stages of growth theory
- d) Lewis' dual sector model

Question 4: Which one of the following characteristics is most likely found in developing countries?

- a) Low population growth rate.
- b) Low fertility rate.
- c) Rising death rate.
- d) High fertility rate.

Question 5: Poverty and misery such as famine/disease are forever inescapable is a theory of...

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

Question 6: 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 7: Karl Marx welcomed capitalism because:

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

Question 8: Which one of the following is a "production linkage" in regional growth models?

- a) Farmers spending income on consumer goods
- b) Demand for agricultural inputs stimulating local industries
- c) Migration from rural to urban areas
- d) Government investment in infrastructure

Question 9: Why do crop farms tend to shed labour on a per hectare basis as they become larger?

- a) Most countries have regulations that oblige farmers to reduce employment on larger farms
- b) Supervising more workers is challenging, encouraging farmers to shift towards more capital-intensive production systems
- c) As crop farms become larger, they prefer to shift in part to livestock production, which requires less labour
- d) Larger farms cannot afford as many workers per hectare as smaller farms.

Question 10: Which of the following is NOT a type of linkage typically discussed in regional growth models?

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

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 so-called 'bottom-up approach' versus the so-called 'top-down approach' to planning. [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, *except for the four that you selected for the main exam*. (Yes, we will check!) 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 large cattle feedlot and abattoir in Amathole Basin, which is near Fort Cox. The rationale for choosing this area is that the communities there (of which there are about 12, encompassing about 840 households in total) have benefitted very little from government support over the past few decades, as the area is regarded as difficult to access. The idea of this particular feedlot is that farmers can bring their young cattle there (generally 6 to 10 months in age), and leave them there until they gain 120 to 150 kg, hopefully within about 8 months. The cattle will then be slaughtered at the new abattoir; the abattoir will take responsibility for marketing the carcass, however only a share (perhaps 80%?) of the proceeds will go back to the farmer; the other share (e.g. 20%) is deducted in order to pay for the feed and care the cattle were given while in the feedlot. Despite this, farmers are expected to make more money from selling an animal through the feedlot / abattoir, than through other channels.

The feedlot will have a capacity of 1000 cattle at a time, and the abattoir will be able to slaughter 100 head per day, which is about twice the capacity of Mthatha's abattoir.

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. We wish you luck!

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 20-year time frame. After some long days and late evenings at the office where you work out all of the relevant benefits and costs. You're aware, however, that the choice of discount rate can make a large difference, so you re-run your analysis three times, once for a discount rate of 5%, again for 10%, and a third time for 15%.

Your results are as follows:

	5% discount rate	10% discount rate	15% discount rate
Net Present Value (Rand):	20 114 808	169 167	-8 721 918
Benefit-cost ratio:	1.62	1.01	0.64

14.1 Determine under which discount rate(s), if any, the programme makes sense from a benefit-cost perspective. [4 marks]

14.2 Explain in general terms why the discount rate makes such a big difference as to the NPV and BCR values. [6 marks]

14.3 Given this sensitivity of the results to the discount rate, how will you use the benefit-cost analysis to help determine whether the initiative is advisable? [5 marks]

Question 15**[20 marks]**

Based on what you know, perform a SWOT analysis of the proposed scheme. (Recall that SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.)

Question 16**[10 marks]**

It has been decided by the Department's senior management that, in addition to the benefit-cost analysis and SWOT analysis, a feasibility study should be undertaken. The decision is also taken that the team appointed to carry out a feasibility study is multidisciplinary.

List *and justify* at least five different disciplines (or types of expertise) that should be included in this particular team.