



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF LAND AND SPATIAL SCIENCES

QUALIFICATION(S): DIPLOMA IN PROPERTY STUDIES BACHELOR OF LAND ADMINISTRATION BACHELOR OF PROPERTY STUDIES	
QUALIFICATION(S) CODE: 06DPRS 07BLAM 08BPRS	NQF LEVEL: 6
COURSE CODE: LET621S	COURSE NAME: LAND ECONOMICS AND TAXATION
EXAMS SESSION: NOVEMBER 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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<p style="text-align: center;">INSTRUCTIONS</p> <ol style="list-style-type: none">1. Read the entire question paper before answering the Questions.2. Please write clearly and legibly!3. The question paper contains a total of 5 questions.4. You must answer <u>ALL QUESTIONS</u>.5. Make sure your Student Number is on the EXAMINATION BOOK(S).

PERMISSIBLE MATERIALS

1. Non-programmable Scientific Calculator

THIS QUESTION PAPER CONSISTS OF 8 PAGES (Including this front page and the graph attached as Appendix A)

Question 1

For each of the following statements indicate whether it is 'TRUE' or 'FALSE'. Each correct answer carries 1 mark. (20)

- a) Given any location, different competing land uses have the same rent paying abilities.
- b) Rent payment ability of a land use is significantly influenced by the rent producing capacity that will accrue from the use of that land.
- c) Depending on accessibility character of a parcel of land, market forces of demand and supply will set the price/rent to be paid by competing users of land.
- d) Supply of land in the Central Business District is usually perfectly elastic and for that reason level of rents and prices normally associated with central location use of land.
- e) Profit-making land use is usually associated with such uses that produce monetary benefits that cannot be quantified to the users of land.
- f) Given any urban use of land (i.e. Residential, industrial or commercial), operations carried on within their areas of highest and best use are profitable, but not as profitable as those carried on within their zones of transference
- g) Landlords usually make rental concessions during periods when the supply of tenants is low. This occurs during and when an economy experiences rapid growth.
- h) When high supply of tenants prevails in a booming economy, landlords frequently demand more rent.
- i) Land resources managers and policymakers for land resource use must respect the constraints posed by the three frameworks for analysing the use of land resources.

- j) Biological framework concerned with the natural environment in which the operators find themselves. This includes differences in weather, climate etc, such as hours of sunlight, temperatures, rainfall, humidity.
- k) Land use allocation is due to the fact that market forces of demand and supply set the price/rent to be paid by competing users of land and for that reason determine how much land will go to a particular type of use.
- l) Land use capacity measures the productive potential of a given parcel of land utilised for a given use at a given time with a specified technological and production conditions.
- m) By Von Thunnen's theory of location, transportation costs have significant effects on rent producing capacity and the extent of the areas within which many products can be produced profitably.
- n) Bid rent theory assumes that in a free market the highest bidder will obtain the use of the land. It stands to reason that the highest bidder is likely to be the one who can obtain the maximum profit per square metre from the site and so can pay the highest rent.
- o) Land by itself has little economic value until it is used in conjunction with inputs of capital, labour and management.
- p) In most economic systems, the market is the primary mechanism for allocating resources, with public intervention amending the market forces in certain spheres and replacing them in others.
- q) By Von Thunen's land rent theory, land rent basically emerges only when increase in demand for land justify the use of less fertile lands
- r) Monetary value placed on land usually reflects its use capacity and for that reason its rent paying ability.

- s) Profit-making land uses are those uses that produce satisfaction (utility) to the users of land whilst non-profit making land uses are those that give only monetary benefits to the users of land.
- t) The principle of equity is that taxes should be fair and based on people's 'ability to pay'.
- u) Property tax satisfies the principle of equity because it is a progressive tax system, the rate of tax rises with increasing rateable values of property.
- v) In situations with declining property values in a taxing district due to declining economic activities, revenues generated from property tax will decline.
- w) Where the rate of tax is fixed annually by local government taking into account the budgeted needs of the authority, annual fluctuation in the amount of tax is caused by fluctuation in the amount of revenue generated from sources other than property tax and changing expenditure requirements.
- x) In situations where the law fixes the rate of property tax in primary legislation, the tax revenues will vary according to changes in market values and regular revaluations.
- y) There is fair and equity in regressive taxes because it is based on ability to pay as it is assessed on the overall distribution of income.
- z) Amount of tax payable on a taxable property satisfies the principle of equity and bears a semblance of progressive tax system, because the amount of tax increases with increasing rateable values.

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Question 2

- a) According to von Thünen's Least-cost location theory as applied to agricultural land use, land rent is a function of three factors. Mention any two (2) of these factors. (2)
- b) Enumerate the two (2) observations and conclusions by von Thünen's Least-cost location theory as applied to agricultural land use. (2)
- c) Attached as appendix A (i.e. Page 8) is a graph illustrating the effect of transportation cost on land rent producing capacity associated with the use of land at various locations from the market. With the information provided answer questions i) to viii) below.
(All figures are in N\$ per ton of products. Output to the tune of 15 tonnes is harvested per acre of land cultivated by each operator at their respective locations).
- i) Where do the two 'No rent margins' occur and why? (2)
- ii) Between which two towns(locations) can profits be made by the operators? (1)
- iii) How much is earned for land rent for the use of land in Otavi? (1)
- iv) If operators of Otavi land are to enjoy land rent of N\$250.00, what is expected of them and by what amount (in your opinion) will lead to that? (4)
- v) Estimate the amount of land rent associated with the use of Oluno and Onguta lands located at a distance of 20km and 25km respectively from the market. (2)
- vi) What is the amount of land rent associated with the 'optimal location' (1)
- vii) In your own words state the meaning of 'optimal location' (1)
- viii) At Onguta, what is the total cost of production including transport costs to the market? (2)

- ix) In your own words state your understanding of “*extensive margin of production*” as used in Von Thuunen’s location theory. (2)

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Question 3

- a) For each of the following state whether the relationship is *POSITIVE* or *NEGATIVE*. (4)
- i) Land value and Utility (satisfaction)
 - ii) Land value and Net land rent
 - iii) Rent paying ability and cost of transportation
 - iv) Rent paying ability and distance to the market

- b) Profile of urban land Uses on the basis of Returns earned is such that the highest value lands at the centre of cities are used for commercial purposes, while areas with successively lower values are used for residential, cropland etc.

Mention the four (4) areas where variations in this general profile usually take place. (4)

- c) Given the following information for a hypothetical Municipal Authority, determine the ‘*property tax rate*’ to be adopted for the purpose of calculating and levying of property tax for the ensuing financial year. (10)

<u>Municipal expenditure requirement</u>		N\$
Extension of water supply		400,500,000
Extension of central sewage system		60,000,000
Acquisition of 5 Units of Fire Brigade @ N\$2,500,000 each		12,500,000
Waste collection		9,800,000
Renovation of Municipal Swimming Pool		1,350,000
Acquisition of new Ambulance		41,300,000
Construction of District hospital		25,000,000
Construction of Primary Health Care Centre		13,800,000

Non Property tax revenue sources		
Donations		30,000,000
Interest on Investment		10,000,000
Grants from central government		60,000,000
Abattoir charges		44,000,000
Registration fees for Taxi cabs and commuter buses		20,000,000
Trade license fees		42,000,000
Types of Properties	Land Values (N\$)	Improvement values(N\$)
Residential properties	334,961,400	1,913,206,000
Industrial properties	299,689,000	2,633,890,000
Commercial properties	1,244,890,000	2,598,601,000

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Question 4

- a) Discuss any two (2) of the following: (10)
- i) Depreciated replacement cost method of valuation
 - ii) Site value taxation
 - iii) Rental value assessment
 - iv) Unit value assessment
- b) Outline the three (3) main aims of the Agricultural (Commercial) Land Reforms Act of 1995 and any four (4) means (how) they are to be met. (11)

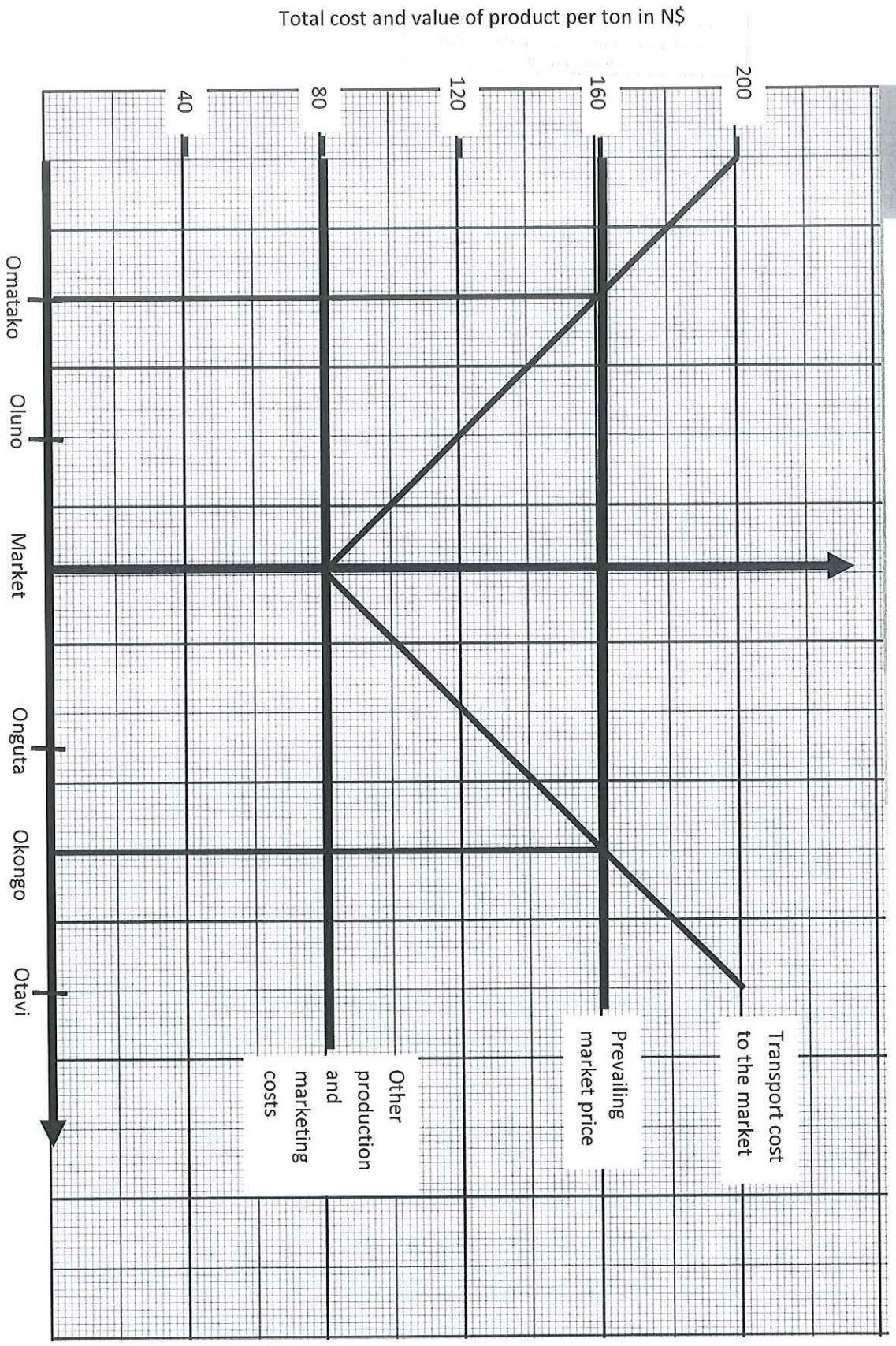
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Question 5

Discuss in detail any three (3) of the main advantages of municipal property tax. (15)

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Use this graph to answer Question 2c i) to ix) in your Question paper.



Towns located at distance from the market