



**NATALIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF ENGINEERING AND SPATIAL SCIENCES**

**DEPARTMENT OF ARCHITECTURE AND SPATIAL SCIENCES**

<b>QUALIFICATION:</b> BACHELOR OF TOWN AND REGIONAL PLANNING	
<b>QUALIFICATION CODE:</b> 07BTAR	<b>LEVEL:</b> 6 <b>CREDITS:</b> 10
<b>COURSE CODE:</b> CCS611S	<b>COURSE NAME:</b> CRITICAL CITY STRUCTURE AND COMPONENTS
<b>DATE:</b> JULY 2022	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Jacques Korrubel, 061 207 2683, jkorrubel@nust.na
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<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. Answer ALL the questions.</li><li>2. Write clearly and neatly.</li><li>3. Number the answers clearly.</li><li>4. Use sketches to improve your answers.</li></ol>

***PERMISSIBLE MATERIALS***

1. Calculator, ruler, pen, pencil and eraser

**THIS QUESTION PAPER CONSISTS OF 6 PAGES** (Including this front page)

**Question 1**

“Counter – urbanisation” is one of the subsequent re-actions that takes place due to large volumes of people moving to urban settlement via the process of rural urban migration. Describe the negative effects of counter – urbanisation on the urban settlements where it occurs.

[5]

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**Question 2**

Provide a description of the analytical model town planners use to predict the internal population growth of residential neighbourhoods over time for a specific city.

[5]

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**Question 3**

Describe the factors that influence the locality of wholesale and warehousing enterprises within a city.

[5]

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**Question 4**

How would you classify the various distribution patterns of industries that can be differentiated after the location factors of industry have influenced their final locality and grouping patterns?

[7]

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**Question 5**

Describe the locational factors that an industrial company will consider when an “Inter City” locality must be selected for this company.

[6]

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**Question 6**

Various underlying economical and spatial processes influence the structural changes that occur in our urban settlements. Can you explain what happens when the following processes occur?

- a) Centripetal vs Centrifugal forces (2)
- b) Concentration vs Dilution (2)
- c) Centralisation vs Decentralisation (2)
- d) Deterioration vs Renewal (2)

[8]

**Question 7**

Provide sketches to illustrate the functional linkages that exist between commercial activities within a City's Central Business District.

[8]

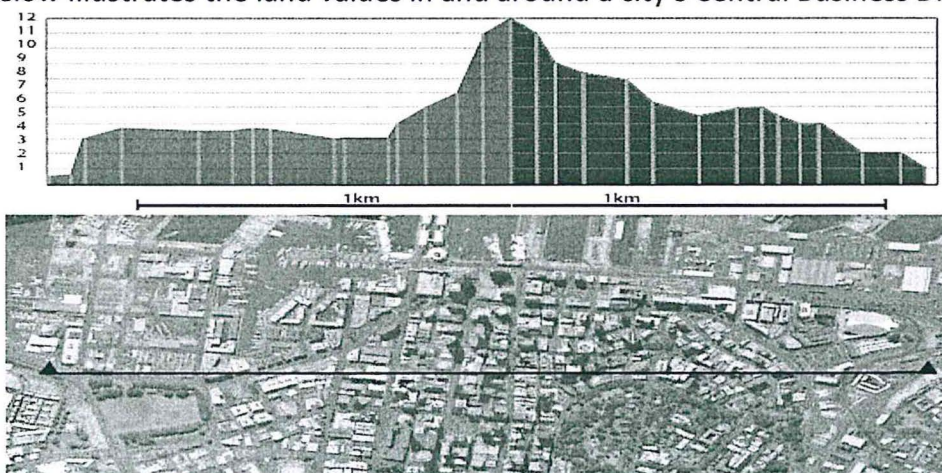
**Question 8**

- a) Provide a detailed graph of the "Rent-Bid" curve for the various land uses in a city. (4)
- b) Provide an explanation on how this phenomenon / theory influences the physical urban structure. (4)

[8]

**Question 9**

The figure below illustrates the land values in and around a city's Central Business District.



Provide a detail explanation of all the tools and methods available to town planners if given the assignment to determine the boundaries of a city's Central Business District.

[10]

**Question 10**

Explain the fundamental recommendations made by Ms Adriana Allen on how the peri-urban area could be planned and managed more effectively compared to the tradition planning interventions.

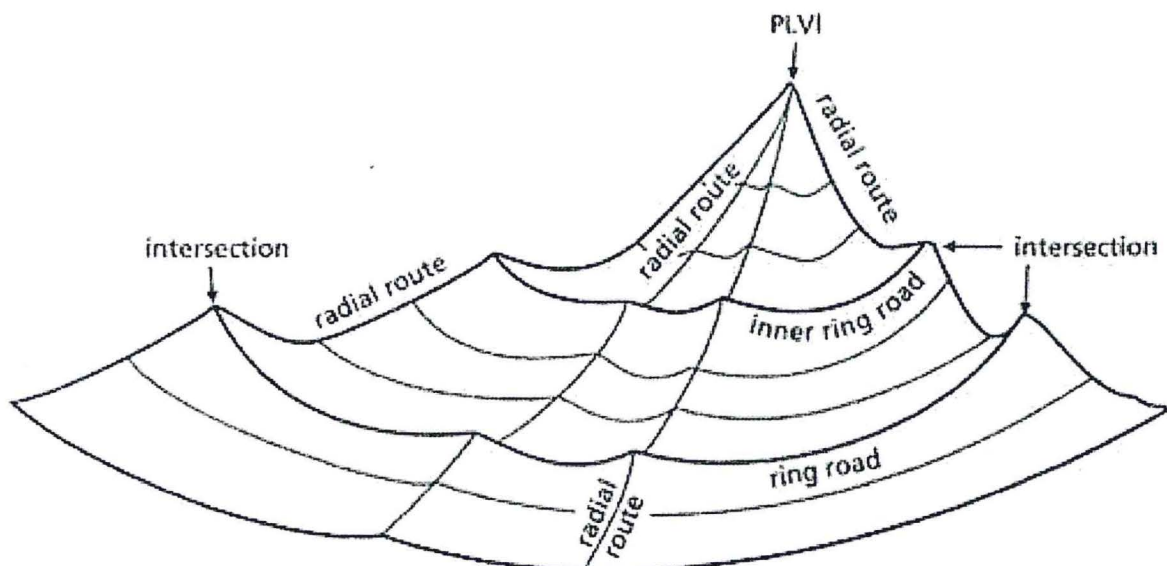
[10]

**Question 11**

By using sketches, differentiate between the phases of the residential housing lifecycle versus the phases of the process of gentrification of the housing units close to an urban settlements central business district.

[6]

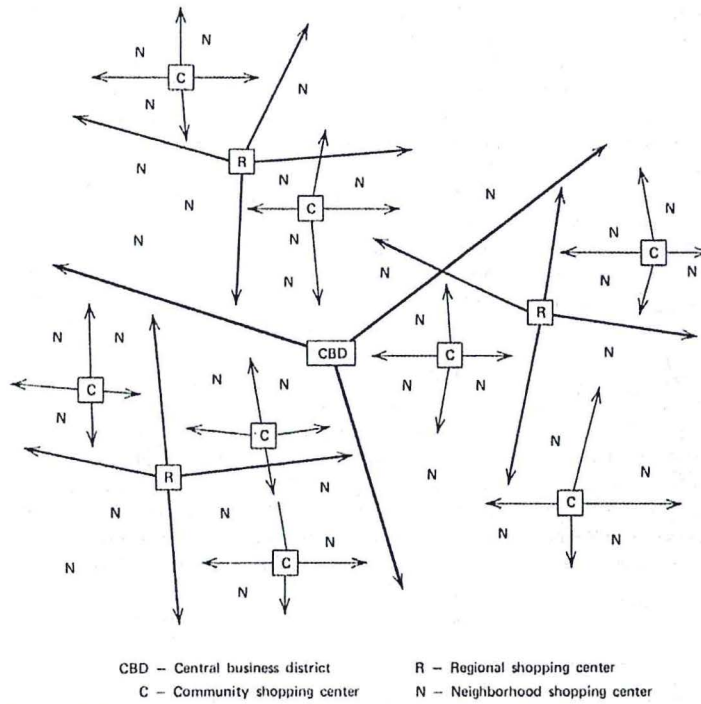
**Question 12**



The picture above illustrates the correlation between land value and the ring and radial road network of an urban settlement. What conclusions can you draw from this correlation between land value and the urban road network?

[5]

**Question 13**

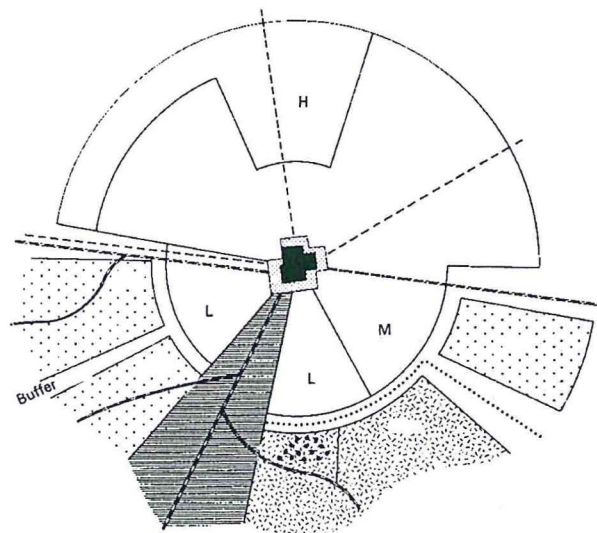


**Figure 16-4** Spatial expression of the retail center hierarchy, after Berry. Length of arrows indicates composite ranges of goods and services at each level.

The illustration above highlights the spatial distribution of retail commercial centres. What facts can you state that will explain the number of the various centres and their spatial distribution.

[6]

**Question 14**

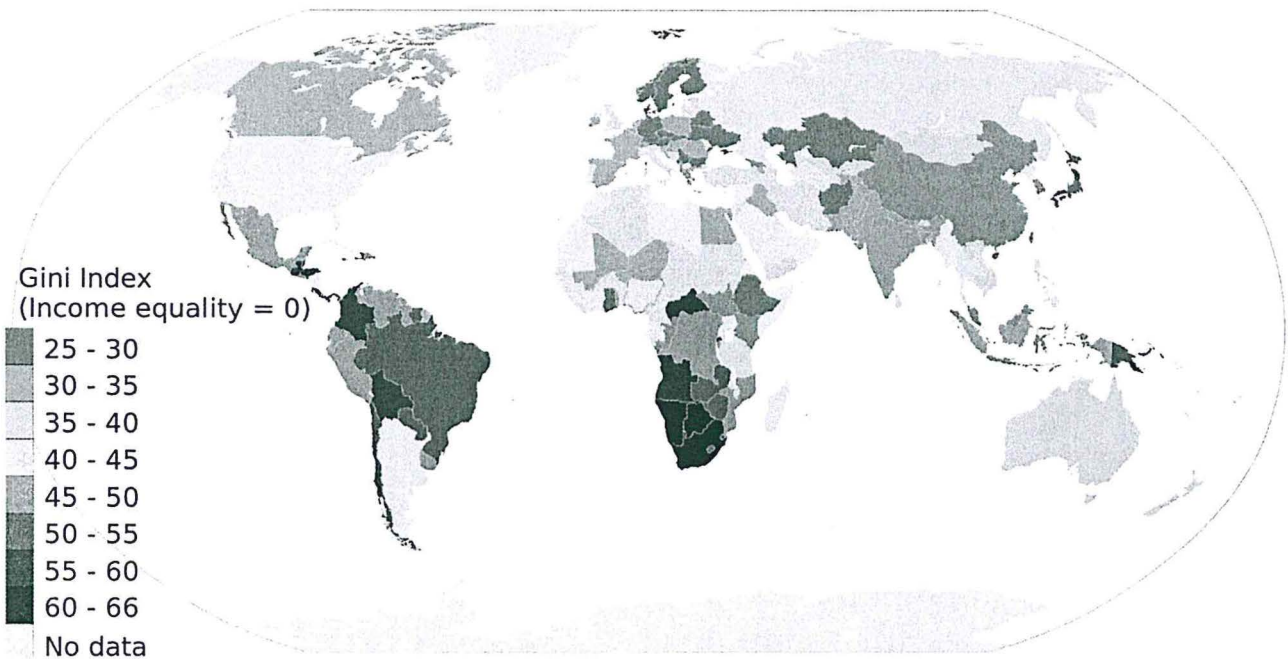


The above picture illustrates an urban settlement with a prominent central business district with low-, middle- and high-income areas separated by natural buffers, transportation corridors and non-residential land uses.

Explain how you would integrate and reverse this spatial separation of residential areas via the placement as well as the combination of public facilities within this urban settlement.

[6]

**Question 15**



The above illustration indicates that Namibia has a Gini Index between 60 and 66.

- (a) Provide a definition of the Gini Index (2)
- (b) Explain the relationship between Namibia's Gini Index and the migration of people from the rural to Namibia's urban centres. (3)

[5]

END

TOTAL [100]