



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE, PLANNING AND CONSTRUCTION

QUALIFICATION: BACHELOR OF TOWN AND REGIONAL PLANNING	
QUALIFICATION CODE: 07BTAR	LEVEL: 6 CREDITS: 10
COURSE CODE: PLP621S	COURSE NAME: PRINCIPLES AND GUIDELINES FOR LAYOUT PLANNING
DATE: NOVEMBER 2022	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions in any sequence you prefer2. Write clearly and neatly.3. Number the answers clearly.4. Use sketches to improve your answers.

PERMISSIBLE MATERIALS

1. Calculator, ruler, pen, pencil, and eraser

THIS QUESTION PAPER CONSISTS OF 5 (Including this front page)

Question 1

- (a) Describe the value of a topographical map for town planning and layout design with reference to its features and characteristics. (5)
- (b) Explain any five aspects that should characterise suitable terrain in respect of settlement making as identified in the CSIR Guidelines for Human Settlement Planning & Design, 2000. (5)
- (c) Cadastral and Policy/Regulatory analysis is critical to obtain information when analysing a site earmarked for planning and development. Identify the aspects displayed on Title Deeds that are deemed important information in the planning process. (5)

[15]

Question 2

In Jan Gehl's video "In search of human scale" he states that we know little about good habitat for human beings in our modern cities.

- (a) Select one of the Spatial principles which you personally think can contribute the most to creating good human habitat and public space when it come to the design of neighbourhoods and cities. (1)
- (b) Motivate your selection in (a) in terms of its function and impact in terms of the focus, goals and performance qualities of layout planning and design. (4)

[5]

Question 3

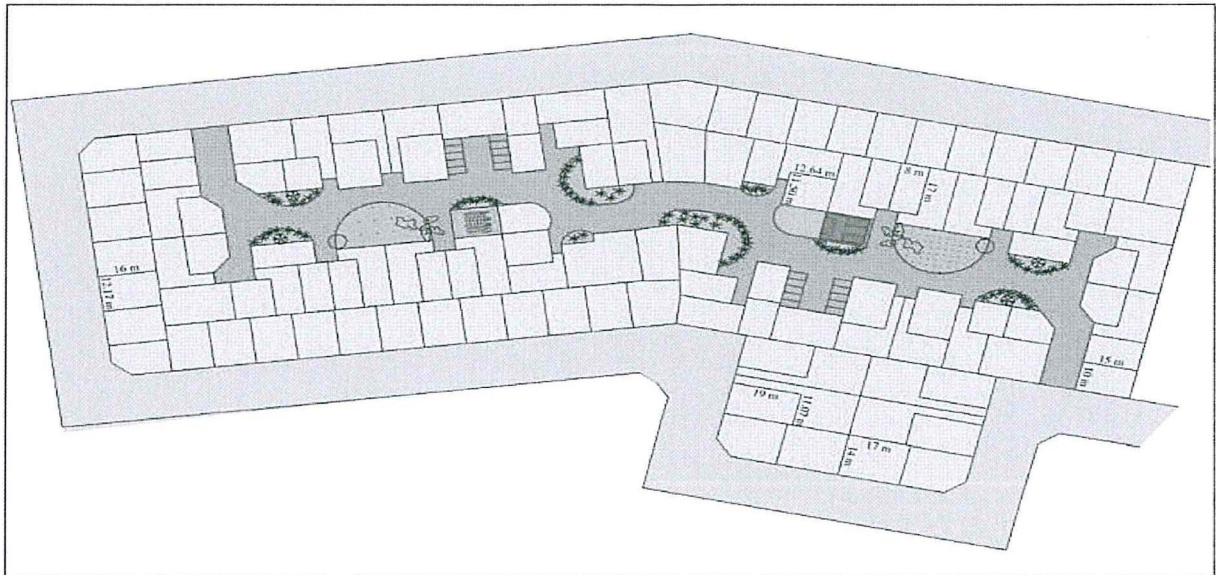
The human centred focus and secondly, the pedestrian as the starting point of all settlement designs makes the creation of a walkable urban environment critical in all designs.

By referring to Jeff Speck's video on the Theory of Walkability as well as Urban Planning 101's Walkability video provide an expansive explanation on the critical qualitative and quantitative principles and guidelines these 2 video presentations recommend when designing a walkable urban settlement.

[15]

Question 4

The figure below illustrates the generic block layout design format called the “Woon-erf” design.



(a) Describe the positive aspects of the “Woon-erf” design format (4)

(b) Describe the negative aspects of the “Woon-erf” design format (3)

[7]

Question 5

Human society functions in a landscape that consists of the original natural landscape, as well as rural and urban landscapes.

To achieve an orderly structure and framework in human settlement the structural principle of continuity is vital in the design of settlement.

In your own words:

(a) Motivate the necessity for the continuity of green spaces in a human settlement (6)

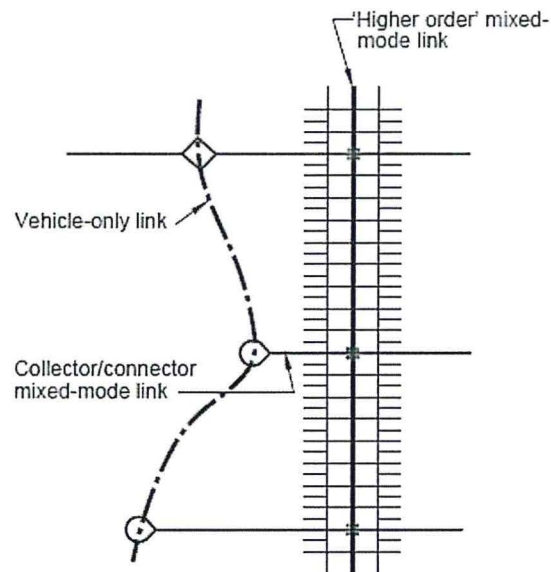
(b) Motivate the necessity for the continuity of movement with a human settlement (6)

[12]

Question 6

The physical relationships between vehicles only, mixed mode and pedestrian only modes within movement networks are illustrated in the following figure. Provide an explanation of these relationships in detail.

[6]

**Question 7**

Describe in detail all the spatial design principles that are essential for proper settlement making.

[14]

Question 8

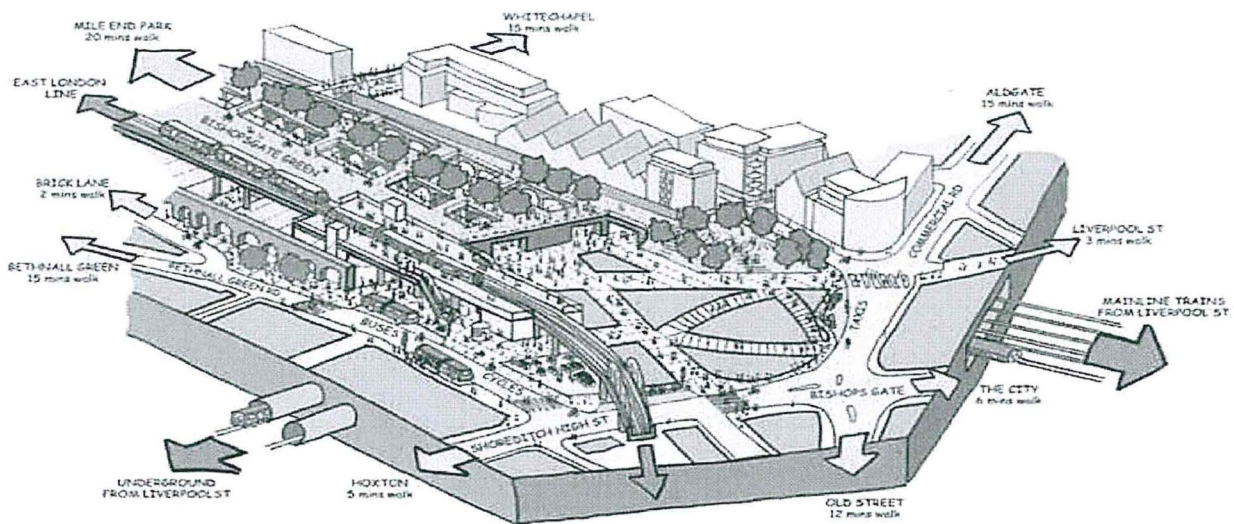
The installation of a water reticulation network in a settlement will have layout implication on the planning and design of a settlement. Describe any 7 of these layout implications in detail.

[7]

Question 9

What would you recommend as being the central design starting points for achieving positively performing urban settlements?

[6]

Question 10

The drawing above depicts an urban transport interchange. The locality of such a transport interchange is guided by certain structural principles of settlement design.

- (a) Identify the specific structural principle. (1)
- (b) Provide a sketch, inclusive of a proper legend, illustrating this structural principle. (6)
- (c) Explain the theory / methodology behind this structural principle to achieve structure and order within human settlements. (6)

[13]

END

TOTAL [100]

