



**NAMIIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF ARCHITECTURE AND SPATIAL PLANNING

QUALIFICATION: Bachelor of Town and Regional Planning	
QUALIFICATION CODE: 07BTAR	LEVEL: 6
COURSE CODE: PLP621S	COURSE NAME: Principles and Guideline for Layout Planning
SESSION: January 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: TOTAL 100

SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Mr. Jacques Korrubel / 207 2683 / jkorrubel@nust.na
MODERATOR:	Ms. Kristy Asino / 207 2244 / kasino@nust.na

<p style="text-align: center;">INSTRUCTIONS</p> <ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Calculator, ruler, pencil and eraser

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

Question 1

How we perceive a site involves gathering, organising and making sense of (interpreting) information about the site and the contextual environment.

- a) What is your understanding of the term “genius loci”? (2)
 - b) Perceiving a site through vision includes aspects like orientation, space, distance, colour and vistas. Describe the sensory dimensions of sounds, smell and touch contributing to our perception of an area during site analysis. (3)
- [5]
-

Question 2

Briefly explain the importance of geological characteristics of a terrain in respect of the implications for settlement establishment?

[5]

Question 3

The CSIR Guidelines for Human Settlement Planning & Design, 2000 identified certain aspects that should characterise suitable terrain in respect of settlement establishment. Explain these aspects in full.

[5]

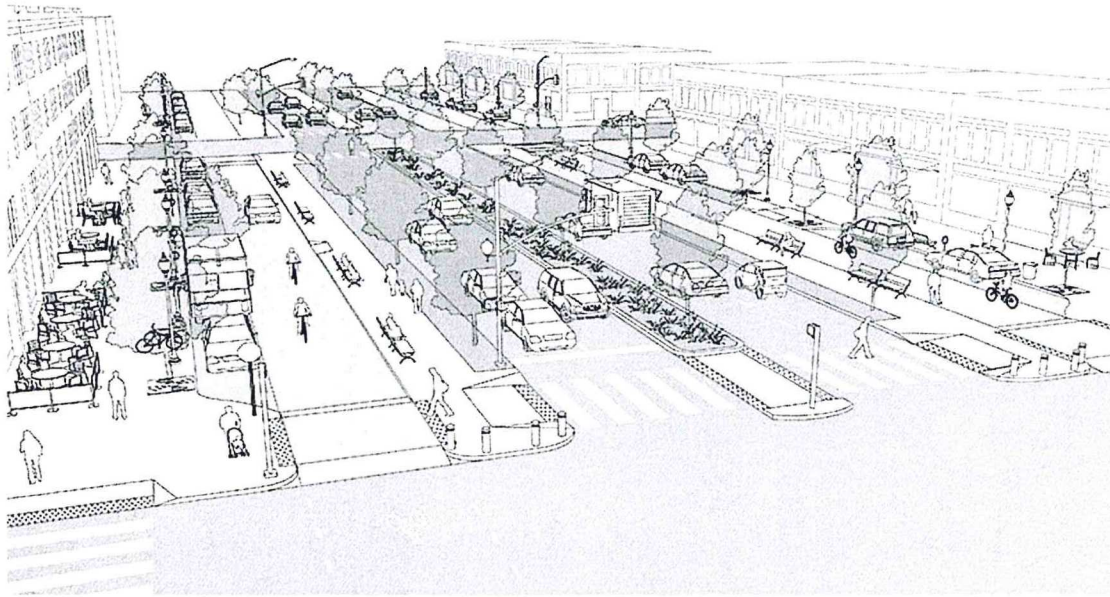
Question 4

Policy/regulatory analysis is critical to obtain information when analysing a site earmarked for planning and development.

- a) Explain three important aspects found in town planning schemes, that will guide a town planner when analysing a site. (3)
 - b) Explain the purpose of a zoning (town planning) scheme as provided for in the Urban and Regional Planning Act, 2018. (2)
- [5]
-

Question 5

The picture below illustrates one of the generic forms of Hard Open Spaces within urban settlements.



- (a) Name this generic form of Hard Open Spaces (1)
- (b) List the categories of qualitative and quantitative design principles that could be used to improve the design of this generic form of a Hard Open Space (5)
- [6]**

Question 6

The configuration of junctions within movement networks results in certain networks being classified as either "open" or "closed" movement networks.

- (a) List the generic movement networks from the most open network to the one that is seen as a totally closed network. (5)
- (b) Provide sketches of the movement networks listed in 6.(a) above to illustrate their level of openness or closeness. (5)
- [10]**

Question 7

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

[6]

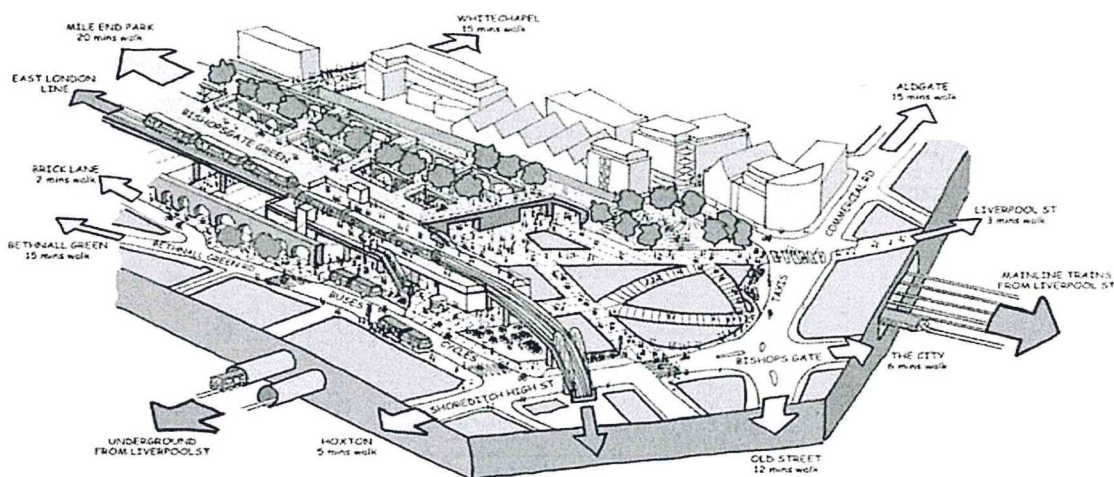
Question 8

Hard open spaces provide certain spatial and structural functions within a settlement on condition that they are properly designed and planned.

- (a) Describe the generic functions of all hard open spaces. (4)
 - (b) Describe the movement functions of hard open spaces. (4)
 - (c) Describe the political or symbolic functions of hard open spaces. (3)
 - (d) List the specific requirements street traders / vendors might have for the design of hard open spaces. (4)
- [15]**

Question 9

The installation of a storm water drainage network is critical for the safeguarding of residential developments in a settlement. Describe what layout implications a storm water management service will have on the design of a settlement. (8)

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]**

Question 11

The above sketch illustrates an activity corridor created to intensify the use of space, as being one of the Spatial Principles or rules of settlement planning and design.

- (a) List the benefits of applying this spatial principle. (5)
- (b) Explain how activity corridors support the concept of compact & mixed-use settlement. (4)
- [9]**

Question 12

Soft open spaces have the role to protect the needs of human beings as well as the ecological needs of the fauna and flora within a settlement. Provide a sketch illustrating the impact of this above mentioned role soft open spaces play to achieve multi-functionally, ecological protection and continued linkages between open spaces.

[5]

Question 13

Effective and efficient land utilisation is one of the quantitative guidelines for land subdivisions. Describe the following guidelines of effective land utilisation in detail:

- (a) Erf dimensions. (2)
- (b) The 2 types of residential densities. (4)
- (c) The tool called Land utilisation Index. (2)
- [8]**

END

Total [100]