



**NAMIBIA 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 Bachelor of Regional and Rural Development	
QUALIFICATION CODE: 07BTAR 07BRAR	LEVEL: 6 CREDITS: 10
COURSE CODE: CEP610S	COURSE NAME: Civil Engineering for Planners
SESSION: July 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100 TOTAL

SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.4. Use sketches to improve your answers.

PERMISSIBLE MATERIALS

1. Calculator, ruler, pencil and eraser

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)

Question 1

How would you evaluate if Namibia is succeeding in reaching the targets to ensure the availability and sustainable management of water and sanitation for all, by referring to Sustainable Development Goal 6?

[8]

Question 2

The transport sector is critical to the development of all sectors of the Namibia economy and in the promotion of national and regional integration.

Elaborate on the challenges faced by the transport sector in Namibia as identified in Namibia's Vision 2030.

[9]

Question 3

Identify eight important Integrated Environmental Management principles to apply in the process of managing an infrastructure development project.

[8]

Question 4

As a Planner for a Regional Council you are appointed to select an appropriate sanitation system for a new settlement area. List 8 of the key issues that you will consider in the design, standards and ultimate choice of the most appropriate system.

[8]

Question 5

(a) How would you categorise the main functions of a road network in an urban settlement?
(5)

(b) How would you test whether street lights installed in an urban settlement is achieving all if its duties and functions?
(5)

[10]

Question 6

Make a distinction between all the formats of solid waste management, placed in a hierarchy from least preferred format to most preferred format?

[6]

Question 7

In terms of the generic institutional issues associated with the delivery of municipal services in a local authority area, please provide an explanation of the practises of "Privatisation" versus "Decentralisation"

[7]

Question 8

What are the features of a "Concession" used as an alternative method of obtaining financing for a settlement's water supply network?

[5]

Question 9

Compare the concepts of intra and inter sectoral linkages when it comes to the provision of services in a Local Authority area and provide an example for each.

[4]

Question 10

The Development (Capital) Project approval process follows a bottom-up approach. In a copy of the table below, complete the respective roles of each role player indicated in the process.

ROLE PLAYER	ROLE
National Planning Commission	
Line Ministries	
Regional Dev. Coordinating Committee	
Constituency Development Committee	
Ward/Village/Local Development Committee	

[5]

Question 11

- (a) Produce a sketch illustrating the difference between a 20, 50 and a 100 year flood plain / flood line and show on the sketch where the construction of permanent houses and structures may be allowed. (6)
- (b) Explain the influence these flood plain / lines have upon the planning standards, designs of storm water drainage systems and layout planning. (4)
- [10]
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Question 12

List 8 critical enablers necessary for a sustainable and cost-effective electricity supply system according to the World Commission of Environment & Development. [8]

Question 13

The regional council you are employed with would like to establish a solid waste management system at various settlement areas under its jurisdiction. What would you recommend as possible financing opportunities for a solid waste management system? [6]

Question 14

Can you make a distinction between the aspects that must be dealt with when planning a storm water drainage system on a micro level within the context of Integrated Water Management? [6]

TOTAL: 100 marks

END