



**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: 5
COURSE CODE: EVP510S	COURSE NAME: ENVIRONMENTAL PLANNING
DATE: JULY 2025	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS:
<ol style="list-style-type: none">1. Answer ALL the questions.2. Read all the questions carefully before answering.3. Number the answers clearly and legibly.

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

Question 1

- a) Sustainability is the capacity of the earth’s natural and human cultural systems & economies to survive, flourish and adapt to changing environmental conditions indefinitely. Indicate the sustainability emphasis for each respective current emphasis indicated in the table below: (7)

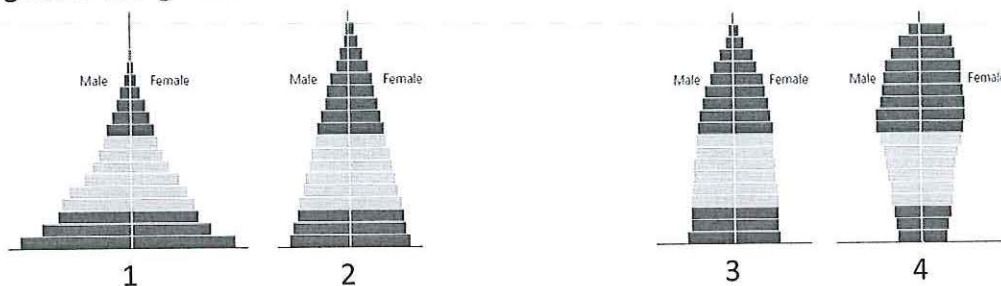
Current emphasis	Sustainability emphasis
Waste disposal	
Protecting species	
Environmental degradation	
Pollution clean-up	
Increasing resource use	
Population growth	
Depleting natural capital	

- b) Pollution is anything in the environment that is harmful to the health, survival or activities of humans or other organisms. Elaborate on pollutant types. (4)
- c) Answer each question below by writing True or False next to each respective number. (4)
- i) Chattanooga city used social capital to address unemployment.
 - ii) Ecological footprint is the amount of resource supply needed in a country or area.
 - iii) Economic growth has the goal to improve living standards.
 - iv) An example of open access resource rights is communal land in trust.

[15]

Question 2

- a) Which of the diagrams below represents the population of Namibia (only write the number)? Give the main characteristics of this population pyramid as well as the description of the age and gender categories. (5)



- b) Urbanisation is measured by the percentage of its population living in urban areas. Indicate the urbanisation pull factors. (3)
- c) How and where we live determine the annual carbon footprint per household. Write down the ratio of the annual carbon footprint between suburban and carless urban households. (2)

[10]

Question 3

- a) Define *systems and biodiversity* in your own words to clarify your understanding of these concepts. (6)
- b) The newly elected President of Namibia has recently announced to investigate nuclear power as a sustainable source of energy. Illustrate the benefits of the conventional nuclear energy cycle. (6)
- c) Answer each question below by writing True or False next to each respective number. (3)
- i) Energy efficiency is how much work we can get from each unit of energy used.
- ii) A disadvantage of solar energy is low efficiency.
- iii) The expert conclusions in considering energy paths include shift away from micropower.

[15]**Question 4**

- a) A major health hazard is the concentration of highly toxic methylmercury in the chemical pathways found in food chains and aquatic systems. Briefly describe how we can control mercury pollution. (4)
- b) Identify the reasons why children are more susceptible to toxins. (3)
- c) Prevention approaches to waste reduction include reusing, recycling or composting of waste. Elaborate on the recycling of plastics as discussed in the case study. (3)
- d) How can we prevent ground water pollution? (3)
- e) Climate change is often described as the biggest challenge of this century. What do you think are solutions to slow climate change? (2)

[15]**Question 5**

- a) Identify strategies to implement environmental economic principles. (3)
- b) Gunter Pauli's *Blue Economy* aims to shift society from scarcity to abundance with what is locally available and tackling issues that cause environmental and related problems in new ways. Explain why a blue economy type can do better than a green economy by completing the table below: (4)

GREEN ECONOMY	BLUE ECONOMY
EXPENSIVE	
SUBSIDISED	
TAX-BASED	
LOW VALUE	

- c) Politics is concerned with the process of actions and policies of government and is critical to environmental sustainability. List the factors limiting the effectiveness of environmental law. (4)
- d) Explain how government can improve environmental security. (4)

[15]

Question 6

- a) Wheeler, in his book: *Planning for Sustainability*, identified unsustainable development trends. Discuss these issues under the category of *economic growth and poverty reduction*. (5)
- b) Urban sprawl is characterised by low-density growth on urban edges, eliminating surrounding agricultural/wild lands and loosely connected land uses. Identify the undesirable impacts of urban sprawl in respect of water. (4)
- c) Sustainable urban development approaches include *New Urbanism and Smart Growth*. Recommend the principles of New Urbanism. (6)

[15]

Question 7

- a) A key function of the Minister under the Environmental Management Act, 2007 (EMA), is to make policies for the use, protection and management of the environment. Summarise the functions of the Environmental Commissioner, appointed by the Minister under the EMA. (5)
- b) Indicate the generic process steps for strategic environmental assessment. (5)
- c) Briefly explain the sustainability indicators of society by Van Biljon, 2014. (5)

[15]

TOTAL: [100]