



NAMIIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF ARCHITECTURE AND SPATIAL PLANNING

QUALIFICATION:	BACHELOR OF REGIONAL AND RURAL DEVELOPMENT		
QUALIFICATION CODE:	07BRAR		
COURSE CODE:	IEM621S	COURSE NAME:	INTEGRATED ENVIRONMENTAL MANAGEMENT
NQF LEVEL:	6	NQF CREDITS:	12
SESSION:	NOVEMBER 2019	PAPER:	THEORY
DURATION:	3 HOURS	MARKS:	100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER			
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| <ol style="list-style-type: none">1. Answer ALL the questions2. Write clearly and legibly3. Number the answers clearly4. Do not forget to write your Student Number on the Answer Book(s) |
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Question 1

Select the correct answer. Only write down the number, for example (a) i.

- (a) Which one of the following characteristics is widely regarded as an important aspect of sustainable development?
- (i.) Inter-generational equity
 - (ii.) Increasing consumption
 - (iii.) Intra-generational inequity
 - (iv.) Decreasing production
- (1)
- (b) ISO 14001 is ...
- (i.) A particularly harmful global warming gas
 - (ii.) A European Union regulation on pollution control
 - (iii.) A quality regulation set out under the Namibian Environmental Management Act
 - (iv.) An international standard setting out best practice for carrying out audits of companies' environmental management systems and policies
- (1)
- (c) The current era is sometimes known as the Anthropocene, because ...
- (i.) It is the era in which humans have evolved.
 - (ii.) It is the era in which humans have had the biggest impact on the world.
 - (iii.) It is the era in which humans invented air travel and telecommunication
 - (iv.) It is the era in which anthrax has been used as a biological weapon
- (1)
- (d) The combustion of fossil fuels will negatively affect the following planetary boundary/boundaries:
- (i.) Climate Change
 - (ii.) Atmospheric aerosol loading
 - (iii.) Ocean acidification
 - (iv.) All of the above
- (1)
- (e) According to the Namibian Constitution, the duty to investigate complaints concerning the over-utilization of living natural resources, irrational exploitation of non-renewable resources, degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia is the responsibility of
- (i.) The Sustainable Development Advisory Council
 - (ii.) The Ombudsman
 - (iii.) The Minister of Environment and Tourism
 - (iv.) The Environmental Commissioner
- (1)
- (f) The purpose of an environmental audit is to ...
- (i.) Inform the environmental authorities of potential impacts of new legislation
 - (ii.) Assign blame for poor environmental management practices
 - (iii.) Improve environmental performance of an organization and/or ensure compliance with industry standards
 - (iv.) Measure harmful emissions over time
- (1)

- (g) An Environmental Clearance Certificate is valid for a period of ...
- (i.) 1 year
 - (ii.) 3 years
 - (iii.) 5 years
 - (iv.) 10 years
- (1)
- (h) A company operating a manufacturing plant has developed an Environmental Management System (EMS). A key aspect of this EMS would be to ...
- (i.) Maximize profits to shareholders of the company
 - (ii.) Develop an environmental policy for the company
 - (iii.) Implement financial audits
 - (iv.) Keep record of technical specifications of machinery
- (1)
- (i) Cradle-to-grave analysis is also known as
- (i.) Eco-balance assessment
 - (ii.) The Linear Economy
 - (iii.) The Circular Economy
 - (iv.) Life-and-death analysis
- (1)

[9]

Question 2

Scenario: You have been appointed as an Environmental Assessment Practitioner by the Namibia University of Science and Technology to assess the possible impacts that will emanate from the construction of its seven storey building that will house the Faculty of Natural Resources and Spatial Science.

- a) Outline in sequence the eleven (11) steps of the Environmental Impact Assessment generic application process that your application should follow as part of the EIA process. (11)
- (11)
- b) Describe all eleven (11) steps that you mentioned in Q2 (a) above?

[22]

Question 3

- a) Proposal for activities stipulated in Schedule 1 of Environmental Management Act of 2007 must be subjected to an Environmental Impact Assessment (EIA) process.
- i. Describe eight examples of Agriculture and Aquaculture related projects for which an environmental impact assessment is mandatory under Namibian legislation. (8)
 - ii. Provide four arguments as to why the EIA is required for these projects? (4)
- b) The calculation and evaluation of environmentally relevant inputs (natural resources), outputs (waste & emissions) and the potential environmental impacts of the life cycle of a product or material is defined as the Life Cycle Assessment. Describe the forces that drives the implementation of the Life Cycle Assessment. (8)

[20]

Question 4

- a) Outline the key differences between a Strategic Environmental Assessment and the Environmental Impact Assessment process? (12)
- b) Discuss the importance of State of the Environment Reporting - (SOER) for Namibia, by referring to the goal/objectives of SOER. (8)

[20]

Question 5

- a) What is *ecological restoration*? (2)
- b) What are the *signs* of successful restoration? (4)
- c) Differentiate between *primary* and *secondary succession*. Clarify your answers with suitable examples. (8)

[14]

Question 6

The Land-Potential Knowledge System (LandPKS) is being developed to provide freely available technology and tools for inventory, assessment and monitoring, sustainable land use planning, and connecting people across the globe.

- a) What is Land Potential Knowledge System about? (3)
- b) What do you understand by the term *Land potential*? (1)
- c) Name three elements that are important with reference to the land potential? (3)

[7]

Question 7

- a) What is Land Evaluation? (2)
- b) When is it necessary to carry out a Land Evaluation? (6)

[8]

TOTAL: 100

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