



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE, PLANNING AND CONSTRUCTION

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 2022	PAPER:	THEORY
DURATION:	3 HOURS	MARKS:	100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER

EXAMINER(S)	Mr. Cyrlus Tjipetekera
MODERATOR:	Prof. M. Hauptfleisch

1. Answer ALL the questions
2. Write clearly and legibly
3. Number the answers clearly
4. Do not forget to write your Student Number on the Answer Book(s)

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

Question 1

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

- (a) 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)
- (b) The combustion of fossil fuels will negative affect the following planetary boundary/boundaries:
- (i.) Climate Change
 - (ii.) Atmospheric aerosol loading
 - (iii.) Ocean acidification
 - (iv.) All of the above (1)
- (c) 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)
- (d) 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)
- (e) An Environmental Clearance Certificate is valid for a period of ...
- (i.) 1 year
 - (ii.) 3 years
 - (iii.) 5 years
 - (iv.) 10 years (1)
- (f) 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)
- (g) 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)

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Question 2

Scenario: You have been appointed as an Environmental Assessment Practitioner by the Ministry of Agriculture, Water and Land Reform to assess the possible impacts that will emanate from the construction of a water canal from Oshakati to Oshivelo.

- 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)
- b) Describe all eleven (11) steps that you mentioned in Q2 (a) above? (11)

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Question 3

- a) Proposals for activities stipulated in Schedule 1 of Environmental Management Act of 2007 must be subjected to an Environmental Impact Assessment (EIA) process. Do not just list them.
 - 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 Environmental Impact Assessment is required for the projects mentioned in Q3 (a) (i)? (4)
- b) Explain the role of public participation ('stakeholder engagement') in an environmental impact assessment. (12)
- c) Life Cycle Assessments considers inputs, outputs and the potential environmental impacts of the product or material. Describe what drives the implementation of the Life Cycle Assessment. (8)

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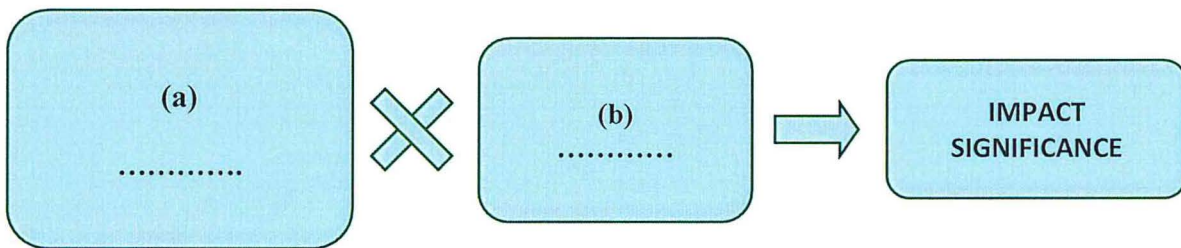
Question 4

- (a) What do we mean when we refer to the term “Environment” in the context of the EIA. (7)
- (b) Outline the key differences between a Strategic Environmental Assessment and the Environmental Impact Assessment? (12)

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Question 5

- a) Impact significance is defined as the joint consideration of (a) and (b) that is attached to the resource losses, environmental deterioration or alternative uses which are foregone. Given this background can you complete the missing details in the figure below? (4)



- b) The environment is too complex to record every possible variable, so we must select a few variables that can be tracked practically and economically – these are referred to as the environmental indicators. Outline eight (8) purposes of the Environmental indicators? (16)

[20]

TOTAL:
**** THE END ****

100



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