



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES

DEPARTMENT OF NATURAL RESOURCES SCIENCES

QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT	
QUALIFICATION CODE: 07BNRS	LEVEL: 7
COURSE CODE: EEE621S	COURSE NAME: ENVIRONMENTAL EDUCATION AND EXTENSION
DATE: NOVEMBER 2024	
DURATION: 3 HOURS	MARKS: 150

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Mr. Helmuth Tjikurunda
MODERATOR:	Mr. Wynand Diergaardt

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination question paper
2. Answering book
3. Calculator and Ruler

THIS QUESTION PAPER CONSISTS OF 6 PAGES (Excluding this front page)

SECTION A: MULTIPLE CHOICE QUESTIONS

QUESTION 1: Choose the correct answer and write the number of the question and the letter.

- 1.1. Which of the following EE Centres is managed by Government?
 - a) Gobabeb Namibia research Centre.
 - b) Namibia Desert Environmental Education Trust.
 - c) Okatjikona Environmental Education Centre.
 - d) Namibia Rehabilitation, Research and Education Centre.
- 1.2. Which of these educational approaches is closely associated with outdoor than classroom learning?
 - a) Structured learning.
 - b) Learning by doing.
 - c) Teaching a diverse group with different age, sex groups and education levels.
 - d) Lifelong learning.
- 1.3. Which statement below best describes the reason for the depletion of natural resources?
 - a) Unsustainable use of natural resources.
 - b) Increasing land, air and freshwater pollution.
 - c) Uncontrolled invasion of alien species
 - d) Mass rural-to-urban migration of people.
- 1.4. What is the likely impact/effects of climate change on farming in Namibia?
 - a) Farming with tropical fruits like pineapples.
 - b) Rain-fed crop farming will be impossible; cattle farming will shift to the north as central Namibia can only support small stock and wildlife farming.
 - c) Winter rain will increase in the south, allowing crop farming without irrigation.
 - d) It will be possible to convert our desert into productive commercial farming region
- 1.5. What is the present trend in the proportion of urban to rural population in Namibia?
 - a) That from 1991 to 2001, the urban population decreased by 5%.
 - b) From 2001 to 2011, the rural population increased by 5%.
 - c) That, just now, over half the Namibian population lives in towns and cities.
 - d) In 2021, more than 60% of all Namibians lived in towns and cities.
- 1.6. Which of these threats has the greatest impact, according to Sir David Attenborough?
 - a) Habitat destruction
 - b) Killing of animals due to hunting, poaching and illegal trade in wildlife.
 - c) Climate change
 - d) Overfishing in freshwater sources.
- 1.7. Which of these is the definition of Environmental Education used by MEFT?
 - a) A process to ensure an environmentally aware population that can evaluate and make sensible decisions to help solve environmental challenges.
 - b) Conscious social influence to take action to make the world a better place for all living things.

- c) Living so as not to harm the environment nor restrict the ability of present and future generations to live and develop in a healthy environment.
 - d) Conscious communication of information to help people form sound opinions and make good decisions about the environment.
- 1.8. Which of these animals lived in South Africa and is now extinct?
- a) Ancient rhinoceros
 - b) The Dodo
 - c) The quagga
 - d) The tiger
- 1.9. What is the cause of the disappearance of about 40% of the fynbos floral kingdom in South Africa?
- a) Pollution of the fynbos land by agrichemicals.
 - b) Clearing of land for settlement development and agricultural activities.
 - c) Climate change.
 - d) Cutting down of trees for timber.
- 1.10. What is the main cause of coral bleaching?
- a) Corals not being able to photosynthesise due to lack of enough oxygen penetrating deep down.
 - b) More carbon dioxide dissolved in the ocean, making it acidic.
 - c) Water is getting too warm, forcing coral to expel the zooxanthellae.
 - d) Low tides expose the corals to sunlight, causing them to dry out.

[10]

SECTION B: TRUE OR FALSE QUESTIONS

QUESTION 2: State whether each statement below is true or false.

- 2.1. Environmental Education is a long-life learning process that deals with adults only.
- 2.2. The acronym ESD stands for Education for Sustainable Development.
- 2.3. To be effective, development and environmental should deal with both physical-biological and socioeconomic dynamics.
- 2.4. The Liberal Humanist Educational approach assumes that students are empty vessels; they know nothing, and the teacher must fill them with information.
- 2.5. The polar bear has shifted its home range from Africa due to the melting of ice in the polar regions.
- 2.6. Currently, habitat fragmentation has the greatest impact on biodiversity, according to Sir David Attenborough.
- 2.7. As a Namibian, you are empowered by law to complain and report irrational and over-exploitative use of natural resources.
- 2.8. Environmental extension is the conscious communication of information to help people make decisions about the environment.

ENVIRONMENTAL EDUCATION AND EXTENTION (EEE621S)

1ST Opportunity November 2024

2.9. Agrichemicals such as fertilizers and pesticides are the cause of eutrophication.

2.10. The recent Namibia population estimate is 1.9 million people.

[10]

SECTION A+B SUBTOTAL: 20

QUESTION 3

- 3.1. Explain deforestation and why it is a problem for tree-dwelling birds and mammals. (3)
- 3.2. Wetlands worldwide have been lost in the last 100 years. Explain the cause of this and say what percent of loss this. (3)
- 3.3. Explain the effects of the disruptions of wildlife migration routes and corridors, and also give 2 examples of such a disruption. (3)
- 3.4. What is illegal wildlife trade and what is its economic impact on a country like Namibia? (3)
- 3.5. Name three animals in Namibia (common and *scientific* names) that are major targets of illegal wildlife trade and mention the reason for targeting these animals. (6)
- 3.6. What causes oil spills at sea and of a critically endangered seabird that is threatened by oil spills off the coast of Namibia? (2)
- 3.7. As a Namibian, you are empowered by law to complain and report irrational and over-exploitative use of natural resources. Which piece of legislation grants you this power? (1)
- 3.8. Explain how we, the citizens of Windhoek, contribute to the eutrophication of our drinking water and what can be done to stop this. (6)

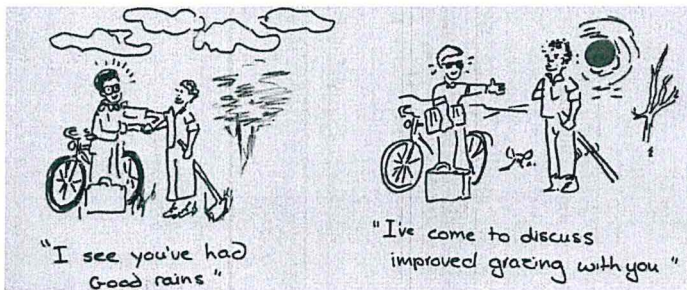
[27]

QUESTION 4

- 4.1. As an Environmental educator and extension officer, you must communicate well and explain what you need to know and consider to achieve this. (3)
- 4.2. Why is it important to undertake individual visits in environmental education and extension?
- 4.3. You received an invitation to attend and address farmers on alternative energy sources (solar water pump) for the community in Groot Aub during Farmer's Day. Explain the benefits of small group discussion for such a day. (3)
- 4.4. Study the diagram and analyse the cartoon below.

A

B



4.4.1. Which of these cartoons/sketches shows a better way to approach a farmer and why?

4.4.2. Explain the qualities of a good extension officer.

(5)

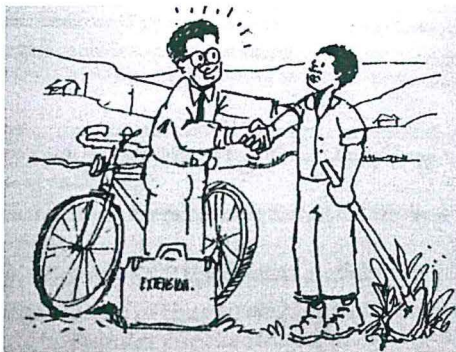
4.5. To be a good communicator, you must have a good first impression of your audience. Provide tips for making a good first impression.

(5)

[23]

QUESTION 5

Study the cartoon below and recall what we discussed in the class.



5.1. Provide the tips an extension officer should use to make a successful first meeting with a farmer. (10)

5.2. An extension officer has a role to play in environmental education and extension work if they are to make an impact. What are the roles of an extension officer?

(6)

[16]

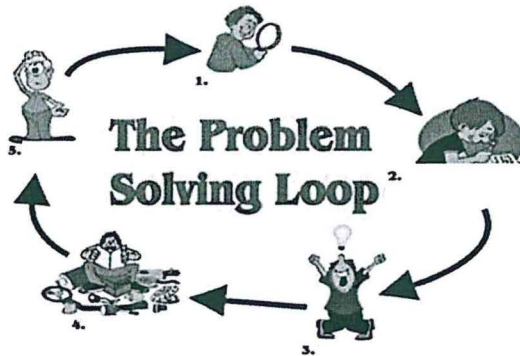
QUESTION 6



“Remember Sir David Attenborough, regarded as one the most critical thinkers of all time.”

6.1. Discuss critical thinking and outline the qualities of a critical thinker like Sir David. (12)

6.2. Complete the problem-solving loop below. (5)



6.3. Critical thinking is essential to help us and others solve problems. Apart from identifying a problem, what other things should a problem solver be able to do to help solve a problem? Give 3 points.

(3)

[20]

QUESTION 7

Sometimes, even the tiniest bug flying around can be a barrier to communication, and environmental educators and extension officers ought to realise and acknowledge this when planning for their work. Recall the video “12 Angry Men”. Identify 5 typical barriers to communication, explain how they can lead to information misinterpretation, and how each of the identified barriers can be overcome.

(15)

[15]

QUESTION 8

You are a class representative of your NRM class. During an excursion to Daan Viljoen Game Park, some of my classmates misbehaved in the park, littered all over the park, and refused to clean up. Prepare a memorandum to be issued regarding this matter.

(10)

[10]

QUESTION 9

9.1. Provide any 5 tips extension officers must follow when forming groups for group environmental extension work for farmers.

(5)

9.2. When planning for a meeting, there are several questions you should ask yourself to make sure your meeting will be effective. Provide any 5 of these questions.

(5)

9.3. Discuss the advantages and disadvantages of a field day extension works. (9)

[19]

TOTAL: 150

=====END OF PAPER=====