



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT (NATURE CONSERVATION)	
QUALIFICATION CODE: 07BNTC	LEVEL: 6
COURSE CODE: MEE 620S	COURSE NAME: METHODOLOGY OF ENVIRONMENTAL EDUCATION
SESSION: JANUARY 2020	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 125

SUPPLEMENTARY/SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	MS. S. BETHUNE
MODERATOR	MR. W. DIERGAARDT

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

PERMISSIBLE MATERIALS

1. All written work must be done in blue or black ink
2. No books, notes and other additional aids are allowed.
3. Two articles from *Conservation and Environment in Namibia*.

THIS QUESTION PAPER CONSISTS OF SIX PAGES, (excluding this front page)

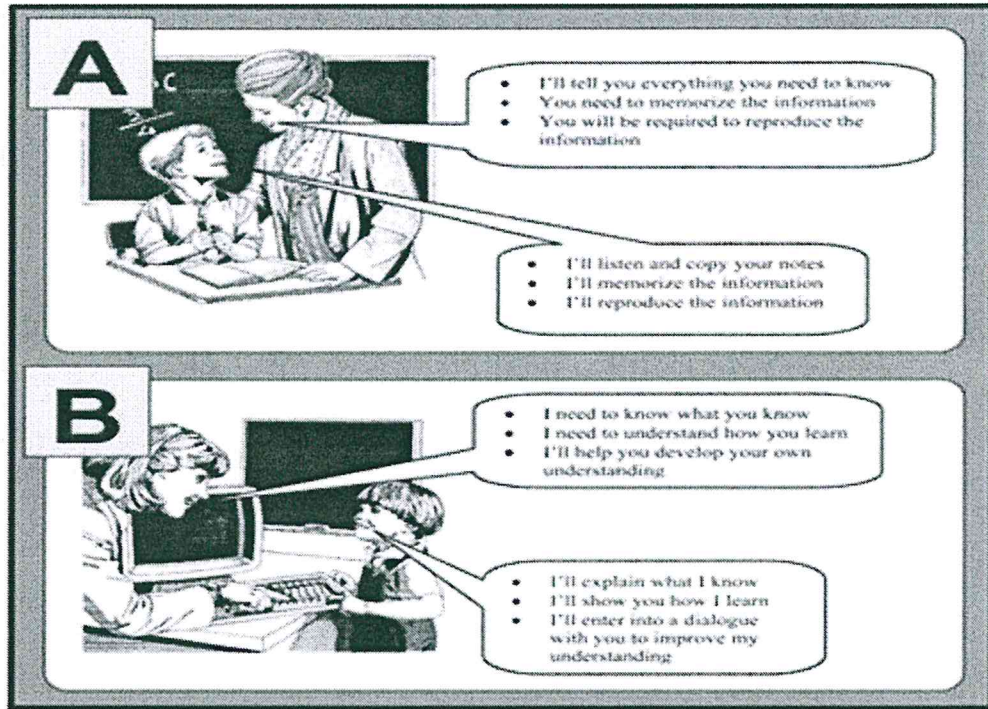
And including 1 page from *Conservation and Environment in Namibia*:
"Rhino poachers caught due to tip-off from //Haub conservancy member"
and "A successful reward scheme clamps down on pangolin trafficking"

QUESTION 1: PRESENTATIONS ON ENVIRONMENTAL ISSUES AND RISKS

- 1.1 Briefly discuss five scientifically-evident climate changes that have been observed and measured in Namibia, that confirm that climate change is real. (5)
- 1.2 Based on what you learnt about the African Wild Dog research and their work to try to understand and reduce Human- predator conflicts, from the researcher, Nadia le Roux, at the Cheetah Conservation Foundation (CCF) during the Kunene excursion. Prepare a short, interactive, **5 slide** presentation to present to **Grade 9** learners in Otjiwarongo. Touch on why wild dogs are important and vulnerable in Namibia, as well as what CCF and is doing to find out more about these predators. Show the lay-out for this **10 minute, interactive** presentation. Draw the outline of each slide, give the headings and the main text points. Either sketch or describe the Illustrations you use. (10)
- If you were not on the Kunene excursion prepare a similar slide show on cheetah, lion or elephant research in Namibia, related to reducing Human-wildlife conflict.
- 1.3 Your classmate, doing WIL at the Rare and Endangered Species Trust (REST) is preparing a presentation on Pangolins and the illegal trade in their scales to make farmers around Otjiwarongo more aware of the poaching issue. She asked you for **five** tips to ensure her audience can follow her power point presentation. (5)

[20]**QUESTION 2: TRENDS IN ENVIRONMENTAL EDUCATION**

- 2.1 What do we mean by Education for Sustainable living? (2)
- 2.2 Name the Namibian Environmental Education Centre that leads by example, in terms of sustainable living **and** say where it is located. (3)
- 2.3 Study the illustration on the next page and answer the following questions:
- 2.3.1 Name and discuss the educational approach or theory illustrated in **A**, in terms of the role of the teacher, the environmental intention **and** give **2** methods teachers use when teaching like this. (5)
- 2.3.2 Which of the two educational approaches in the illustration is used by the Giraffe Conservation Fund during their Environmental Education outings to Daan Viljoen Game Reserve **and** motivate your answer? (5)



[15]

QUESTION 3: EFFECTIVE COMMUNICATION, CRITICAL THINKING AND BARRIERS

- 3.1 Your **posture or body language** is very important when giving a presentation. (6)
Describe **three** common mistakes that you must avoid **and** why.
- 3.2 Recall the video, "*12 Angry Men*", where the main character, the architect, Mr. MacArthur, has difficulty persuading the other jury members to critically assess the evidence. Name and discuss **five, Critical Thinking skills** that Mr McArthur has, **and motivate** how he uses each to gradually persuade the other jury members that 'reasonable doubt' exists. (10)

[16]

QUESTION 4: ORAL AND WRITTEN COMMUNICATION

- 4.1 As an employee of IRDNC, you deal with Human/Lion conflicts in the Big 3 conservancies around the Palmwag concession area. An angry farmer from Ganamub village, who allowed his cattle to feed in the Hoanib River, has lost two calves to lions. He has come to talk to you about this at the Anabeb Conservancy office. Describe how you will handle this face-to-face interview. (6)

- 4.2 a) Write a short (100 - 150 word) article for the "NUST Brief" on your participation in the "Fridays for Future" March, in Windhoek on 20 September this year and Provide suitable captions for both photographs below, to illustrate your article: (6)
(2)



b)



and c)

- 4.3 Choose one of the short articles below, A or B and read it.

RHINO POACHERS CAUGHT DUE TO TIP-OFF FROM //HUAB CONSERVANCY MEMBER

The //Huab Conservancy in the Kunene Region is home to some of Namibia's free-ranging black rhino, but until recently the conservancy has struggled to generate income from its wildlife. Due to its largely inaccessible location off the main tourism route in southern Kunene, //Huab's members have reaped few benefits from their wildlife in the past. This changed when Ultimate Safaris established a lodge in the conservancy in 2016 and developed a unique rhino tracking tourism product that employs conservancy rhino rangers to monitor the rhinos and allows guests to view them unobtrusively. Ultimate Safaris is thus demonstrating the tangible value of rhinos to local people.

During June 2017 a member of the //Huab Conservancy noticed some suspicious activity on the road north of Khorixas while herding livestock. Knowing that these people might be on the way to kill one of the black rhinos, he alerted the local authorities. This tip-off led to the rapid deployment of police and MET rangers to the area, where they found the suspects and arrested them. They were armed and clearly prepared for poaching activities. The driver who dropped them off in the area, and was to collect them later, was lured back to the area, resulting in the arrest of the driver and the impoundment of the vehicle. This was enough evidence to open a court case against them. Criminal syndicates will find it increasingly difficult to operate in areas where the local people understand the value of their wildlife and know what to do when they spot suspicious activities.

<http://www.ultimatesafaris.na/about/journeys-under-canvas>

Protect Pangolins
Report any suspicious activity
\$ CASH REWARD \$
Visible signs of pangolin trafficking are everywhere and the police

A SUCCESSFUL REWARD SCHEME CLAMPS DOWN ON PANGOLIN TRAFFICKING

Bringing Namibian citizens on board to fight wildlife crime involves increasing their awareness of the problem and providing suitable incentives for them to act. While the crimes against rhinos and elephants are well known, and their value to the country has been well publicised, the pangolin has historically received less attention than it deserves. Pangolins are the most trafficked animal in the world, and this illegal international trade started affecting Namibia in early 2017 as cases of pangolin trafficking increased to unprecedented levels.

To counter this new threat, the Ministry of Environment and Tourism joined the Namibian Chamber of Environment and other partners to set up a reward scheme to incentivise Namibians to report pangolin trafficking. Cash rewards are offered for information leading to the arrest of poachers, and the reward amount is increased if the informant is willing to testify in court. Since its inception in late 2017 up to January 2019 this scheme has led to 75 criminal cases being opened, 139 arrests, and the rescue and rehabilitation of 45 live pangolins. This shows what can be achieved when we invite ordinary citizens to participate in the war against wildlife crime.

<http://www.n-c-e.org/sites/default/files/2019-02/Pangolin%20saving%20scheme%20paying%20off%20-%20Environment%20-%20Namibian%20Sun.pdf>

CONSERVATION AND THE ENVIRONMENT IN NAMIBIA 2019 17

A

OR

B

(6)

In your own words, critically assess the structure of the article: say what attracts the reader, what makes it interesting and easy to read, what that message is, the benefits it shows and how you can help to prevent poaching of these endangered animals.

[20]

QUESTION 5: EFFECTIVE MEETINGS

- 5.1 Based on your experience as a class when planning the “*Fridays for Future*” march, draw up **5 point agenda**, for the wrap up, feedback, meeting held **after** the successful march on 20 September this year. (5)
- 5.2 List **four other** tasks of the secretary of an organisation such as a conservancy management committee. (4)
- 5.3 What is the role of an extension worker at such committee meeting? (1)

[10]

QUESTION 6: WORKING WITH COMMUNITY GROUPS

- 6.1 Relate the saying, “*Give a man a fish and he will eat for a day, teach him to fish and he will feed his family all his life*”, to extension work” (2)
- 6.2 On your excursion to the conservancies in north-western Namibia you noticed that although there are mopane trees, there are no young trees. You are concerned that overgrazing and resultant erosion have caused this lack of recruitment. Therefore you would like to encourage the Anabeb communal farmers to take better care of their plant resources by taking steps to reduce overgrazing. How would you go about forming such a farmers group? (6)
- 6.3 Based on your meetings with committee members of different Conservancy Management committees, on your Kunene excursion, either this year or last year. Describe the most effective way to be seated for such a meeting. You may draw a sketch to show the most appropriate seating arrangement. (2)

[10]

QUESTION 7: GROUP EXTENSION METHODS

Indicate which group extension method would be best suited to each situation and briefly explain why.

- 7.1 Conservancies near Waterberg have asked you, a researcher at CCF, about how they can combat bush encroachment while also getting an income from this. (2)
- 7.2 Participants at a community workshop on the impacts of different fishing methods on the fish populations in the Okavango River and floodplains need to explore the advantages and disadvantages of each of five fishing methods. (2)
- 7.3 Rhino poaching is becoming a serious threat in Namibia. NBC has invited, the Hon Pohamba P Shifeta, the Minister of Environment and Tourism, Dr Axel Hartmann, the chief Vet in Etosha National Park, the head of the anti-poaching unit at NamPol, and Dr Tendai Nzuma, Ecology lecturer at NUST, to explain the seriousness of this issue to the Namibian public. (2)

- 7.4 Alien invasive control has been very effective at Waterberg and you would like to teach members of Doro Inawas Conservancy how to control their alien invasive *Nicotiana glauca* infestation in the Ugab River. (2)
- 7.5 M.E.T. has offered to reintroduce game into the Oskop Conservancy in the Hardap Region, but the conservancy committee first need to learn more about monitoring their rainfall, vegetation and game numbers using the events book system. (2)
- 7.6 The National Herbarium wants to train NUST plant studies students how to collect, label and correctly mount plant specimens. (2)
- 7.7 A new conservancy is being formed along the Okavango River and you would like to give the new committee a chance to see how established conservancies such as #Khoadi //Hoas and Anabeb have successfully incorporated community based tourism and joint-ventures in their activities. (2)
- 7.8 The Gobabeb Namib Research Centre is having an open day and needs an entertaining way to make the visitors more aware of the importance of floods and how water resources are shared by users upstream and downstream. (2)

[16]

QUESTION 8: PARTICIPATORY RURAL APPRAISALS

- 8.1 Explain what is meant by “visual sharing” and what are **two** advantages of this? (3)
- 8.2 Decide which PRA technique or method to use in each of the following scenarios **and** in each case **explain why** the method you selected is the best one to use.
- 8.2.1 Where the village gets its water supply and how it is used/shared within the village? (3)
- 8.2.2 You are an extension officer working with the Okavango River Basin Management Committee and you want to convince communal farmers in the Kavango Region that cutting trees along the riverbanks leads to deforestation, erosion and loss of important riverine habitats. (3)
- 8.2.3 As the community campsite manager at Spitskopje you would like to know how rainfall in the Tsesib conservancy varies throughout the year? (3)
- 8.2.4 How the water supply infrastructure has improved in the Cuvelai Basin every ten years since 1960? (3)
- 8.2.5 You as the manager of the Anabeb Conservancy want illiterate community members to prioritize the importance of different natural resources in their area to help him advise the management of the resources they feel are most important. (3)

[18]

TOTAL MARKS 125

Namibia is making great progress in combating wildlife crime using its full array of strategic weapons, but the war is far from over. Our investigative procedures and legal system must align even further to counteract the changing strategies of poaching and trafficking syndicates who are quick to respond to Namibia's adaptive law enforcement approaches. There is every reason to have confidence in Namibia's commitment and integrated strategy to fight and prosecute wildlife crime. Finally, every Namibian citizen needs to become fully aware of the severity of wildlife crime, so that we use our incredible collective power to help the authorities crack down on those who would dare to steal from us.

References:

Operation Blue Rhino: <https://www.namibiansun.com/news/elite-unit-nails-73-poachers2018-11-30/>
 In 2017 Namibia increased the penalties: [https://www.namibian.com.na/163122/archive-read/N\\$25m-or-20-years-for-illegal-wildlife-sales](https://www.namibian.com.na/163122/archive-read/N$25m-or-20-years-for-illegal-wildlife-sales)
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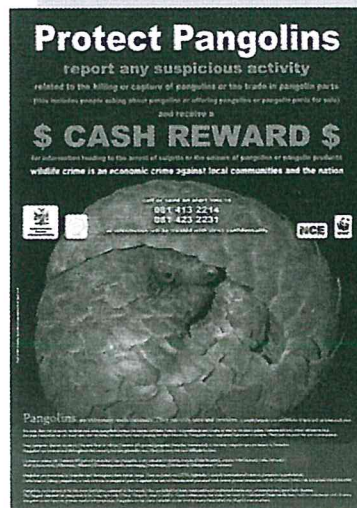


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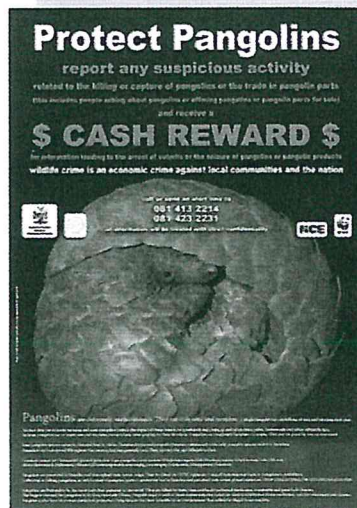


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