



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

DEPARTMENT OF NATURAL AND APPLIED SCIENCES

QUALIFICATION : BACHELOR OF SCIENCE (HONOURS)	
QUALIFICATION CODE: 08BOSC	LEVEL: 8
COURSE CODE: EIM821S	COURSE NAME: ENVIRONMENTAL INDUSTRIAL AND MEDICAL BIOTECHNOLOGY
SESSION: NOVEMBER 2022	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 120

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Prof Percy Chimwamurombe
MODERATOR:	Dr Jean-Damascene Uzabakiriho

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

PERMISSIBLE MATERIALS

Non-programmable Calculators

ATTACHMENTS

None

THIS QUESTION PAPER CONSISTS OF 2 PAGES (Including this front page)

SECTION A:

[60 MARKS]

1. Describe the role of bacteria in the Nitrogen cycle. (5)
2. Write short notes on use of ozone in water treatment. (5)
3. Write short notes on food reformulation. (10)
4. Write short notes on bioremediation. (10)
5. Describe the use of DNA fingerprinting in determining paternity. (10)
6. Write short notes on stem cell research, paying attention to biomedicine. (10)
7. Describe the use of gene therapy in the treatment of a disease of your choice. (10)

Section B: Essays

[60 MARKS]

1. Write an essay describing the establishment of an industrial enterprise to remediate oil-spilled soils and freshwaters of Namibia. (30)
2. Write a detailed essay critically appraising the applications of gene therapy and pharmacogenetics in Namibia. (30)

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