



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

SCHOOL OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGY, CHEMISTRY AND PHYSICS

QUALIFICATION: BACHELOR OF SCIENCE HONOURS	
QUALIFICATION CODE: 07BOSH	LEVEL: 8
COURSE CODE: ISP811S	COURSE NAME: INSTRUMENTAL PHYSICS
SESSION: JUNE 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	PROF MUNAWAR KARIM
MODERATOR:	DR. ZIVAYI CHIGUVARE

INSTRUCTIONS
<ol style="list-style-type: none">1. Write all your answers in the answer booklet provided.2. Read the whole question before answering.3. Begin each question on a new page.

PERMISSIBLE MATERIALS

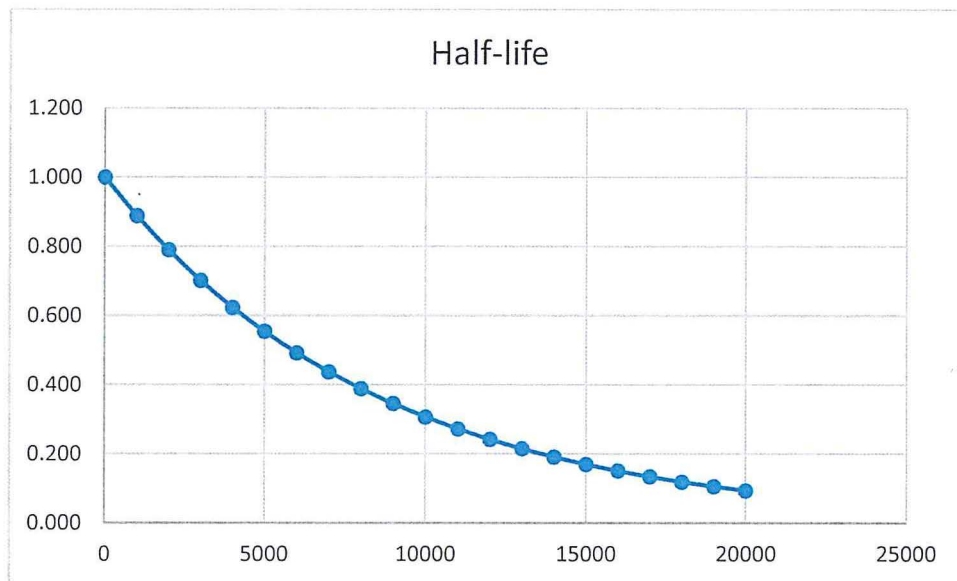
Scientific Calculator

THIS PAPER CONSISTS OF 5 PAGES (INCLUDING THIS FIRST PAGE)

(iv) Calculate the age of the sample.

(5)

(2)



QUESTION 3

(25)

3) The graph below shows the absorption spectrum of atmospheric gases. The scale of the lower graph is from 0% to 100%.

City A: Noon at +2h, 11.67m ahead of GMT

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City E: Noon at -9h, 39.88m behind GMT.