



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMPUTING AND INFORMATICS  
DEPARTMENT OF CYBER SECURITY**

<b>QUALIFICATION : BACHELOR OF COMPUTER SCIENCE HONOURS (DIGITAL FORENSICS)</b>	
<b>QUALIFICATION CODE: 08BHDF</b>	<b>LEVEL: 8</b>
<b>COURSE: DIGITAL FORENSICS MANAGEMENT</b>	<b>COURSE CODE: DFM811S</b>
<b>DATE: JULY 2023</b>	<b>PAPER: THEORY</b>
<b>DURATION: 3H</b>	<b>MARKS: 100</b>

<b>SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	MR. JULIUS SILAA
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**THIS QUESTION PAPER CONSISTS OF 2 PAGES**  
(Excluding this front page)

**INSTRUCTIONS**

1. Answer ALL the questions on the answer scripts.
2. Write clearly and neatly.
3. Number the answers clearly.

**PERMISSIBLE MATERIALS**

1. Calculator.

**Question 1**

“Of the disciplines that encompass digital forensics is perhaps the one most closely defined by legal requirements, and one whose growth and evolution is informed and guided by case law, regulatory changes, and the ability of cyberlawyers and digital forensics experts to take the products of forensic tools and processes to court” (Ryan & Shpantzer,2002).

The Namibian Legislation contain 12 Acts including a handful of Bills with provisions for governing digital forensics investigations. Complete the table below by providing a list of 6 important **Acts or Bills** that are known to you. Then where applicable list specific section(s) from your Act or Bill of choice which can be applied to digital forensics investigations. Finally, complete the **comments** column by listing any relevant legal provision made by each of those sections you just listed under **Sections** column. (15 marks)

Items	Act or Bill (1x 6 marks)	Sections ( 1x3marks)	Comment(2x3=6 marks)
1			
2			
3			
4		N/A	N/A
5		N/A	N/A
6		N/A	N/A

**Question 2**

- a) According to the National Institute of Standards and Technology (NIST) guideline for forensic tools validation, there exist two important factors for results to be considered admissible in the court of law.
- b) List and discuss these factors. (6 marks)
- c) Jason Daubert proposes five key questions (aka Daubert Criteria for admissibility) which set a good starting point for drafting forensics validation reports for tools, techniques and methods that will hold up in a court of law. Briefly outline these five (5) questions.

(10 marks)

### Question 3

A closer look at Network forensic investigation reveals that the procedure for collection, preservation, documentation etc. can be very cumbersome if compared to ordinary Computer forensics investigations. Discuss how the following can pose challenges during a network forensics investigation. (12 marks)

- i. Search warrant
- ii. Required time for evidence collection
- iii. Byte by byte copy of network computer

### Question 4

a)“Digital investigations can fall into two categories: public-sector and private-sector investigations. Although private-sector investigations often start as civil cases, they can develop into criminal cases; likewise, a criminal case can have implications leading to a civil case” (Nelson, Phillips & Steurt,2016).

- a) Outline any five (5) most common types of litigation in private sectors. (5 marks)
- b) Discuss the most important precaution an expert should take into consideration when conducting a digital forensics investigation for a private company. (5 marks)

### Question 5

- a) Briefly describe the main objective or contribution of Sedona principles in e-discovery. (5marks)
- b) E-discovery litigations are characterized by overwhelming amount of electronic evidence creating necessity for reducing the volume of information to what is relevant. Describe by means of a well labelled diagram a step-by-step approach for addressing the above-mentioned concerns. (12 marks)

### Question 6

A bank has hired your firm to investigate employee fraud. The bank uses four 20 TB machines on a LAN. You're permitted to talk to the network administrator, who is familiar with where the data is stored. What diplomatic strategies should you use? Which acquisition method should you use? Write a *one to two pages* report outlining the problems you expect to encounter, explaining how to rectify them, and describing your solution. Be sure to address any customer privacy issues. (30 marks)

\*\*\*\*\*END OF PAPER\*\*\*\*\*