



**NAMIPIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF COMPUTING AND INFORMATICS**

DEPARTMENT OF COMPUTER SCIENCE

<b>QUALIFICATION:</b> BACHELOR OF COMPUTER SCIENCE (HONS DIGITAL FORENSICS)	
<b>QUALIFICATION CODE:</b> 08 BHDF	<b>LEVEL:</b> 8
<b>COURSE:</b> MOBILE FORENSICS	<b>COURSE CODE:</b> MBF821S
<b>DATE:</b> JANUARY 2019	<b>SESSION:</b> THEORY
<b>DURATION:</b> 2 HOURS	<b>MARKS:</b> 70

<b>SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER:</b>	MR. ATLEE M. GAMUNDANI
<b>MODERATOR:</b>	DR AMELIA PHILLIPS

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

**INSTRUCTIONS**

1. Answer ALL the questions.
2. Write clearly and neatly.
3. Begin each question on a new page.
4. Number the answers clearly as per the question paper numbering.
5. Marks/Scores per question paper are given in [].
6. NUST examination rules and regulations apply.

**PERMISSIBLE MATERIALS**

1. None

### Question 1

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- (a) Which two numbers are usually used to protect a SIM? **[2 Marks]**
- (b) How do you gain access to a protected SIM? **[2 Marks]**
- (c) “ Mobile Forensics is not computer Forensics!” Justify whether you agree or disagree with this statement, citing some examples of choice. **[4 Marks]**
- (d) During the mobile device forensic process, the data capture involves different avenues. Identify and explain any three such data capture avenues. **[6 Marks]**
- (e) Consider using logical tools. Identify six (6) items that can be pulled from mobile devices on a best-case scenario basis. **[6 Marks]**
- (f) *Those involved in system administration should know about Mobile Forensics. Why?* **[4 Marks]**

### Question 2

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- (a) Base stations are key components in Mobile Forensics. Explain why that is the case, giving some examples where necessary. **[6 Marks]**
- (b) Which two key areas will you attribute to mobile device forensics investigations beyond the device itself? **[4 Marks]**
- (c) The general rules of evidence apply across board when considering Digital and Mobile Forensics. Identify any three such rules and explain each of them in brief **[6 Marks]**

### Question 3

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- (a) There are a number of on-scene activities to be performed, identify a hypothetical case and explain in detail any 4 on-scene activities you would perform for such a case. **[8 Marks]**
- (b) A software company contracted you, to look into the activities of their Finance Executive. There was a concern regarding the Finance Executive’s actions while he was away on business representing his company. You did a thorough examination of the Finance Executive’s Blackberry phone, which revealed that the Finance Executive had a substance abuse issue. Through the cell phone usage, you were able to place the Finance Executive in different parts of the world when he was telling his board members that he was somewhere else. Analysis determined the Finance Executive was using his company's name and reputation to assist him in certain personal gains. This violated the company's policy, as it put the company's reputation in a negative light. As a result of the information obtained, by your investigation, the Finance Executive was fired from his position.

- (i). What will be the pre-requisites you have to observe before conducting the investigation presented here? **[4 Marks]**
- (ii). How would you collect the evidence from the phone in question? **[3 Marks]**

**Question 4**

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The owner of a family run business suspected his son of embezzling money. NUST Mobile Forensics Experts were contracted to perform complete Mobile forensic analysis on the son's Samsung Phone. The investigation not only confirmed that the son was embezzling money, but also identified the son's plans for developing a service that would be in direct competition to the family business. Inappropriate mobile device usage was discovered.

With this information the owner was able to approach his son. All funds and client records were recovered without incident.

- (a) Outline a proper chain of custody that you as a member of the NUST Mobile Forensic investigators followed to provide evidence to the Owner. **[5 Marks]**
- (b) What possible tools would you recommend to your Forensics team to ensure you thoroughly investigate this case and why? **[6 Marks]**
- (c) List any four steps in their chronological order; you had to apply for blackberry forensics. **[4 Marks]**

**\*\*\*\*\*End of Examination Paper\*\*\*\*\***