NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

QUALIFICATION: BACHELOR OF COMPUTER SCIENCE HONOURS (MOBILE DEVELOPMENT)	
QUALIFICATION CODE: 08BCHM	LEVEL: 8
COURSE: Interaction Design and Evaluation	COURSE CODE: IDE820S
DATE: November 2019	PAPER: THEORY
DURATION: 2 Hours	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	Prof Heike Winschiers-Theophilus
MODERATOR:	Dr Tariq Zaman

THIS EXAMINIATION CONSISTS OF 3 PAGES

(Including this front page)

INSTRUCTIONS

1. Answer all questions in the answer book provided.
2. When answering you should be guided by the allocation of marks for each question.
3. All things that should not be marked, e.g. any 'rough work', have to be crossed out unambiguously.
4. There are no books, notes or any other additional material allowed for this examination.
5. Read the whole question before answering. Later parts of the same question might be dependent on your answer to earlier parts.

1) You have been contracted to lead the Design Innovation team for the Windhoek Smart City project. Free-wifi for all citizens has been decided upon and now you have been requested to select 1 priority area (such as entertainment, transport, commerce, or city services) to propose concepts to significantly improve citizens' and visitors' experiences in the city.

    a) Propose 2 theories previously suggested for design "in the wild" you would apply. Give a short explanation of both and how they apply. **[10]**

    b) Suggest 2 technologies and interaction techniques that could be implemented to improve citizens' or visitors' experience of Windhoek. **[10]**

    c) Citizens and visitors are very different in their behaviour and expectations. Describe how you would identify and cater for their different needs in the design process and how you would resolve their likely contradictory requirements. **[10]**

    d) Describe in detail how you would run evaluations for the technologies you have suggested in Question 1 b above. **[10]**

2) "If our future is going to be hybrid, I would argue that humans will experience the future's nature as hybrid. This means that distinguishing between a physical world and a digital one may become obsolete." (Fuchsberger, 2019, in The future's hybrid nature)

Explain the concept of hybrid futures and the meaning of Fuchsberger's statement above. **[10]**

3) While some physical affordances might be universal to humans many digital once are dependent on the users' computer literacy and cultural backgrounds, among others. What are the consequences in designing affordances for interactive technologies in museums and galleries which are visited by people from different countries and backgrounds? Give an example. **[10]**

4) A current Namibian University project has engaged 10 youth born after independence and 5 interaction students under the leadership of one PhD student, where an interactive exhibition was co-created over a period of 3 months. The aim was to disseminate youth's perspectives and voices in postcolonial Namibia to a wider Namibian audience. List three possible challenges that could occur/occurred in the process and how you would address each of them. **[12]**

5)   In the article "Designing for the future - but which one?" Nardi (2016) suggest that there are different approaches to designing for the future such as steampunk, speculative design, multi-live span, and collapse informatics. Contrast two of those approaches in designing for new digital services for well-being in a multi-cultural multi-sectoral Namibia. Explain the concept and the possible outcomes.   **[10]**

6)   In an era promoting technologies striving for full immersion, you have been requested to design and develop a virtual reality application for the independence museum which takes the visitors back into the time of freedom fights. What is your take as a designer in terms of designing for such experiences and what are your responsibilities?   **[10]**

7)   With a global movement around promoting citizen engagement, be it in political decisions, science data collections or other activities, we have observed a relatively low citizen engagement in Namibia. Please discuss 2 challenges that are specific to the local context and technological solutions to overcome them.   **[8]**

[End of the Paper]