NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

QUALIFICATION: BACHELOR OF COMPUTER SCIENCE, BACHELOR OF INFORMATICS, BACHELOR OF GEOINFORMATION TECHNOLOGY	
QUALIFICATION CODE: 07BACS,07BAIF, 07GITB	**LEVEL:** 6
COURSE: : SOFTWARE ENGINEERING 1 & HCI	**COURSE CODE:** SEH620S
DATE: JANUARY 2020	**PAPER:** THEORY
DURATION: 3 HRS	**MARKS:** 80

SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	**Mr. STEVEN UATUAROMUINJO TJIRASO**
MODERATOR:	**Mr. MIKE ABIA**

THIS QUESTION PAPER CONSISTS OF 3 PRINTED PAGES
(Including this front page)

INSTRUCTIONS

1. Answer ALL the questions,
2. Write clearly & neatly and number the answers clearly.
3. When answering questions you should be guided by the allocation of marks in [ ].
4. Use of any electronic devices (e.g. cell-phones)
5. NUST examination rules and regulations apply.

PERMISSIBLE MATERIALS
Non programmable Scientific Calculator.

Question 1 [10 Marks]

1.1 When specifications of what a software should do is defined by the customer or client, what is this software product called? [2 Marks]

a) Generic product
b) Software Product
c) Customized product
d) None of the above

1.2 Which ONE of the following is a process flow? [2 Marks]

a) Communication
b) Modelling
c) Linear
d) None of the above

1.3 Which one is a process pattern type? [2 Marks]

a) Task phase patterns
b) Evolutionary patterns
c) Stage patterns
d) None of the above

1.4 The term *Interactive system* is used to cover components, devices, products and software systems that are primarily concerned with the transmission, display, storage or transformation of information that people can perceive. Choose an example of an *Interactive system.* [2 Marks]

a) Chair
b) Mobile phone
c) Sunglasses
d) None of the above

1.5 The waterfall model of software development is; [2 Marks]

a) A reasonable approach when requirements are well defined
b) A good approach when a working program is required quickly
c) An old fashioned model that is rarely used anymore
d) None of the above

Question 2 [30 Marks]

2.1 Briefly discuss three (3) situations when a prototyping model can be used? [6 Marks]

2.2 Negotiation is one of the critical tasks in requirements engineering. Give two reasons why would negotiation be necessary in requirements engineering? [4 Marks]

2.3 Many software developers do not pay enough attention to requirements engineering.
a) Give one (1) reason why do you think this is the case? [1 Mark]
b) How could this lack of attention affect the final software product? [2X2 Marks]

2.4 Consider the Student Class Attendance Management System for a SEH620S. Identify five different actors with this system? [5 Marks]

2.5 Describe the following categories of stakeholders in a software engineering project:

a) **Users** [2.5 Marks]
b) **Customers** [2.5 Marks]
c) **Software developers** [2.5 Marks]
d) **Development managers.** [2.5 Marks]

Question 3 [20 Marks]

3.1 Most Agile methods recommends face-to-face communication. But members of a software team and their customers may be geographically separated from one another.

a) Do you think this implies that geographical separation should be avoided for team members and their customers? [1 Mark]

b) What do you suggest should be done to overcome this geographical separation problem among agile teams? [3 Marks]

3.2 Briefly describe any five (5) principles of agile methods. [5X2 Marks]

3.3 With an example for each, discuss any three (3) interactive systems you know? [6 Marks]

Question 4 [20 Marks]

4.1 NUST Marketing Department hired you to design for them a mobile application to keep track of and get connected to their alumni. The manager does not want you (Designer) to waste a lot of time going through the principles of being human-centered.

List four (4) benefits of being human-centered in the design of interactive systems?[4 Marks]

4.2 When designing a user interface, discuss four (4) key concerns of an interaction designer? [8 Marks]

4.3 Perform a brief PACT analysis of your Attendance Registration system. [8 Marks]

~END~

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