



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF COMMUNICATION AND INFORMATION SCIENCE**  
**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

**BACHELOR OF SCIENCE DEGREE IN LIBRARY AND INFORMATION SCIENCE**  
**INFORMATION RETRIEVAL SYSTEMS**

**ILI 1203**

**Second Semester Examination Paper**

**May 2017**

This examination paper consists of 2 pages

**Time Allowed:** 3 hours  
**Total Marks:** 100  
**Special Requirements:** None  
**Examiner's name:** Mr. Nelson Guvava

**INSTRUCTIONS**

1. Answer any four (4) questions.
2. Give equal time to each question.
3. Each question carries 25 marks.
4. Importance is attached to clear presentation of ideas, good expression and legibility of handwriting.

**MARK ALLOCATION**

<b>QUESTION</b>	<b>MARKS</b>
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25

- 1.1 What are the functions of the six subsystems of an information retrieval system? [12 Marks]
- 1.2 Describe inherent characteristics of a basic system giving examples that reflect these characteristics in information retrieval systems. [13 Marks]
2. Clarify what happens in each of the stages of the User-Centered Design (UCD) /Human-Centred Design for interactive systems, in this case Information Retrieval Systems. [25 Marks]
3. Assess the evaluation criteria used for information retrieval systems. [25 Marks]
4. Assess the value of user profiling, understanding nature of users, information needs, and information seeking behaviour. [25 Marks]
- 5.1 How do the following factors influence information searching: user goal and task, user knowledge structure (IR knowledge, domain knowledge and system knowledge), design of information retrieval systems, social and organisational context. [12 Marks]
- 5.2 Explain the following retrieval process steps:  
Problem recognition and acceptance, problem definition, search system selection, query formulation, query execution, examination of results (including relevance feedback), information extraction and Reflection/iteration/termination. [8 Marks]
- 5.3 Describe the following:  
5.3.1 Descriptive metadata  
5.3.2 Structural metadata  
5.3.3 Administrative metadata [5 Marks]
- 6.1 Analyse the challenges that most users face in the use of search engines. [12marks]
- 6.2 Explain the results ranking criteria of web search engines. [13 Marks]