



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF COMMUNICATION AND INFORMATION SCIENCE**  
**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**  
**BACHELOR OF SCIENCE HONOURS DEGREE IN LIBRARY AND INFORMATION SCIENCE**  
**DESIGN AND REALISATION OF INTERNET INFORMATION**  
**ILI 2205**

**Second Semester Examination Paper**

**May 2016**

This examination paper consists of 2 pages

**Time Allowed:** 3 hours  
**Total Marks:** 100  
**Special Requirements:** None  
**Examiner's Name:** Mr. E.Mupaikwa

**INSTRUCTIONS**

1. Answer any four (4) questions
2. Give equal time to all questions you choose
3. Each question carries 25 marks
4. Importance is attached to accuracy, clarity of expression and legible handwriting

**MARK ALLOCATION**

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

1. Examine the role of the Internet in supporting academic libraries and scholarly research. [25 marks]
- 2.1 Discuss with examples, the operation of the following encryption methods:
  - 2.1.1 Private key encryption [7 marks]
  - 2.1.2 Public key encryption. [8 marks]
- 2.2. Discuss the different types of attacks that can be prevented by cryptosystems. [10 marks]
- 3.1 Write a JavaScript code to list multiples of three (3) that are less than 100 in descending order. [10 marks]
- 3.2 Outline characteristics of a good web site. [15 marks]
- 4 Examine the TCP/IP architecture indicating the associated protocols. [25 marks]
5. Discuss the following network configurations;
  - 5.1. Client-server [10 marks]
  - 5.2 Peer-to-peer [15 marks]
6. Compare and contrast open and closed security systems in a network environment. [25 marks]