



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMMUNICATION AND INFORMATION SCIENCE**

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

**MASTER OF SCIENCE DEGREE IN LIBRARY AND INFORMATION SCIENCE**

**ADVANCED INFORMATION TECHNOLOGY APPLICATIONS**

**ILI 5101**

**First Semester Examination Paper**

**November 2016**

This examination paper consists of 2 pages

**Time Allowed:** 3 hours

**Total Marks:** 100

**Special Requirements:** None

**Examiner's Name:** Mrs A.R. Nyaku

**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 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 Discuss with justification the issues to be addressed by a complaints handling policy of a digital library information Centre. [10 marks]
- 1.2 Analyse the use of any five methods of reaching electronic audience. [15 marks]
- 2 You are tasked with a project to upgrade an academic library, suggest and justify issues you would take into consideration regarding purchase and upgrade of the following
- 2.1 Software [5 marks]  
2.2 Laptops [5 marks]  
2.3 Network devices [5 marks]  
2.4 Desktop computers [5 marks]  
2.5 Printers [5 marks]
- 3.1 Discuss how cryptology and cryptanalysis has impacted on security of library information centres. [12 marks]
- 3.2 Evaluate any other security issues that affect library information centres. [13 marks]
4. Analyse the move by any three service providers of your choice to provide reliable internet connection in Zimbabwe. [25 marks]
5. Assess the network devices and protocols for each of the following layers of the OSI reference model
- 5.1 Application layer [7 marks]  
5.2 Transport layer [6marks]  
5.3 Data link layer [6 marks]  
5.4 Physical layer [6 marks]
- 6.1 Assess the barriers to the adoption of Electronic Data Interchange (EDI) by Information Centre in Zimbabwe, how would you as an Information professional overcome the barriers you discussed. [10 marks]
- 6.2 Within the context of library information centres evaluate the 7 principles Supply Chain Management. [15 marks]