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

STAGE I FIRST SEMESTER JANUARY 2013 SUPPLEMENTARY EXAMINATIONS

ILI 5101: ADVANCED INFORMATION TECHNOLOGY APPLICATIONS

TIME: 3 HOURS

Instructions to candidates
1. Answer any four (4) questions.
2. Each question carries 25 marks.
3. Importance is attached to accuracy, clarity of expression and legibility of handwriting.

1.1 Justify the use of PHP, JAVA scripts and CSS in web designing.   [10 marks]

1.2. Discuss the factors that influence the behaviour of consumers within electronic
   environments.   [15 marks]

2. Suggest and justify issues to be considered by information managers when buying the following items:

2.1 Software   [5 marks]

2.2 Laptops   [5 marks]

2.3 CD's and DVD's   [5 marks]

2.4 Desktop computers   [5 marks]

2.5 Printers   [5 marks]

3. Discuss security threats to electronic information within a library set-up, showing measures that you would take to minimise the risk associated with these threats, as an information manager.   [25 marks]

4.1 Evaluate the use of fiber optic and coaxial cables as transmission media in a networked library information system.   [8 marks]

4.2 Analyse the functions of each of the following layers of the OSI reference models:

4.2.1 Application layer   [4 marks]

4.2.2 Data link layer   [4 marks]

4.2.3 Physical Layer   [4 marks]

4.3 Examine any two common transport layer protocols that are useful in information
   centres.   [5 marks]

5. Assess the barriers to the adoption of Electronic Data Interchange (EDI) by information
   centres in Zimbabwe, showing how you would, as information professional, overcome the
   barriers.   [25 marks]

6. You are assisting a team that is upgrading a network for a medical school library. There has
   been an increase in membership, and a high demand for WIFI. The existing network is now
   slow. The budget is tight. The library is housed within a building that contains large offices
   with wide hallways. In one of the nearby rooms, the school has an ultrasound machine and
   other devices that emit electromagnetic interference.

   Draft a network requirements specification document that addresses the concerns of the
   medical school library. Justify the network devices you list.   [25 marks]

END OF PAPER