

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMUNICATION AND INFORMATION SCIENCE
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

MSC IN LIBRARY AND INFORMATION SCIENCE

STAGE I FIRST SEMESTER OCTOBER 2005 SUPPLEMENTARY EXAMINATIONS

ILI 5101 ADVANCED INFORMATION TECHNOLOGY APPLICATIONS

TIME: 3 HOURS + 30 MIN READING

INSTRUCTIONS TO CANDIDATES

1. THE QUESTION PAPER CONTAINS SIX QUESTIONS.
 2. ANSWER ANY **FOUR** QUESTIONS.
 3. EACH QUESTION CARRIES 25 MARKS.
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1. By first defining security explain the following:
 - (a) Aims and objectives of data/information security
 - (b) Security controls
 - (c) Threats to hardware, software and data [25 marks]
2. When developing a website it is important to create a good interface, develop a website using tools that are compatible with most web browsers. etc.

Describe the main architectural features of a well developed website. [25 marks]
4. Explain what the following codes do giving details to each and every statement of the code. [25 marks]

```
<html>
<head>
<title> Supplementary </title>
</head>
$ db = mysql – connect ("localhost", "root")
mysql – select – db("mydb", $db);
$result = mysql – query(" SELECT * FROM student", $db);
echo " <table border = 1 >\n";
echo "<tr><td>Nmae </td><td> Position </tr>\n";
while ($myrow = mysql – fetch – row ($result))
```

```

{
Print f t (" <tr> < td> % s % s </ td> < td> %s
                </td> </tr>\n",
                $myrow[1],
                $myrow[2],
                $myrow[3];
}
echo "</table>\n" ;

?>
</body>
</html>

```

4. (a) Explain how Transmission Control Protocol Connection Establishment operates [15 marks]
- (b) By first defining what a domain name is, give three examples of the following stating their importance on the Internet
- (i) Generic Top Level Domain
 - (ii) Country code Top Level Domain (cc TLD)
 - (iii) Proposed TLD [10 marks]
5. You are requested by your organization to present a paper on methods, tools and techniques used for accessing information on the internet. Prepare a detailed outline of the paper you are going to present to the organization. [25 marks]
6. Describe the following components of a Database Management Systems (DBMS).
- (i) Data Dictionary [3 marks]
 - (ii) Data Languages [6 marks]
 - (iii) Teleprocessing monitor [3 marks]
 - (iv) Application Development [2 marks]
 - (v) Security Software [6 marks]
 - (vi) Archiving and recovery system [5 marks]

END OF PAPER