(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER EXAMINATIONS

SPECIAL/SUPPLEMENTARY

FOR THE CERTIFICATE OF INFORMATION TECHNOLOGY

COURSE CODE: ITC 013

COURSE TITLE: INTERNET APPLICATION

DATE: 01/08/2022   **TIME: 2PM – 3:30PM**

INSTRUCTIONS TO CANDIDATES

Question ONE (1) is compulsory
Answer ANY other TWO (2) questions

TIME: 1 ½ Hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of 3 printed pages. Please Turn Over ▶

QUESTION ONE [24 MARKS]

a) Define the following terminologies. [6 marks]
   i. Internet Service Providers
   ii. Protocol
   iii. Domain Name System

b) Define the internet and describe who owns it. Differentiate it with a network [5 marks]

c) What is the main function of a firewall in a network environment? [2 mark]

d) Give the 7 layers of the OSI Model and briefly explain the function of each layer [7 marks]

e) Describe client server model as used in internet applications. [4 marks]

QUESTION TWO [18 MARKS]

a) Give atleast four (4) elements required to connect to the Internet. [4 marks]

b) Outline the responsibilities of ISPs in providing internet to their customers [4 marks]

c) Given the domain name www.exampledomain.com, indicate the different parts of the domain [4 marks]

d) George is an education student at Masinde Muliro University of Science and Technology. He just bought a new laptop and would like use it to access the student portal of the university. Now that you are an information technology student, George has come to you for advice. Explain what needs to be done for him to get internet connectivity so that he can access the student portal. [6 marks]

QUESTION THREE [18 MARKS]

a) Define HTML and why is it important in internetworking [2 marks]

b) Differentiate between HTTP and HTTPs as used in the internet in accessing web content. [4 marks]

c) What is the significance of using the following alongside HTML in web programming [6 marks]
   i) CSS
   ii) PHP
   iii) JavaScript

d) Consider the following HTML Code extract, describe what will be the output of the code if ran in a browser. [6 marks]

```
<!DOCTYPE html>
<html>
<body>

<p> Student Table <p>

<table border = "1">

<tr>
<th colspan= "3">Class Members</th>
</tr>

<tr>
    <th>First Name</th>
    <th>last Name</th>
    <th>Age</th>
 </tr>

<tr>
    <th>Jane</th>
    <th>Akoth</th>
    <th>20</th>
</tr>

<tr>
    <th>Kevin</th>
    <th>Wekesa</th>
    <th>25</th>
</tr>

</table>

</body>
</html>
```

QUESTION FOUR [18 MARKS]

a. State and explain any **THREE** applications of the Internet [6 marks]

b. While technology changes at a rapid pace, so do internet connections. The type of internet connection will determine how much time is spent for uploading or downloading. State four ways in which one can connect to the internet

[4 marks]

c. Internet has taken over most of the day to day operations in different sectors and has brought about tremendous revolution as far as technology is concerned. What would be the impact on people and businesses if the internet was suddenly switched off? Explain your answer using examples. [8 marks]

QUESTION FIVE [18 MARKS]

a) Differentiate between a **web browser** and a **search engine** giving examples in each case

[6 marks]

b) Emails are an important tool in organizations and for personal use. It is purposely used for communications and sending of small files. Describe the process of sending an email indicating the major components of the email from connecting to the internet, choosing the software, composing the message up to the point of sending the mail. [12 marks]