

## NKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

# **Higher National Diploma in Information Technology** First Year, First Semester Examination - 2017 **HNDIT1106- Web Development**

|  | - |                       |
|--|---|-----------------------|
| Instructions for Candidates:                     |   | No. of questions: 05  |
| Answer four (04) questions including question 01 |   | No. of pages : 04     |
| All questions carry equal marks                  |   | Time : Two (02) hours |

# Qu

| )uest     | ion 01  |
|-----------|---|
| (i)       | Select the most suitable answer from the given list and fill in the blanks.   |
| <b>a.</b> | A is a collection of computers and devices interconnected by communications channels that facilitate communications among users and allow users to share resources. |
| b.        | The is a pattern of network communication in which clients send requests to servers over a computer network and the servers send responses to clients.              |
| c.        | The is the largest communication network ever conceived in the world.   |
| d.        | In addition to an IP address, most Internet hosts or servers have   |
| e.        | is a part of the Internet, which supports hypertext documents, allowing users to view and navigate different types of data  |
| f.        | is an example for web server.   |
| g.        | is a client side language which can be used for designing the statistic web pages.  |
| h.        | is a specialized service that lets you use one computer to access the contents of another computer.   |
| i.        | is the protocol for exchanging files over the Internet which uses the Internet's TCP/IP protocols to enable data transfer.  |
| j.        | is a service that allows users to communicate in real time by typing text in a special window.  |
|           | (2x10=20 marks)   |

(Client-server model, WWW, Telnet, FTP, IRC, HTTP, Apache, PHP, Samba Network, Internet, HTML, a Domain Name System (DNS), Internet service providers)

| (11)    | State whether the following sentences are True or False.               |                   |         |
|---------|--|-------------------|---------|
| a.      | Customers should consider bandwidth and cost before selecting          | g an Internet pa  | ckage   |
|         | ()   | _                 |         |
| b.      | Internet Service Providers do not allow organizations and in           | ndividuals to p   | ublish  |
|         | information on the Internet. ()  |                   |         |
|         | ISDN stands for Integrated Server Digital Network. (                   | `                 |         |
| C.      |  |                   | neine   |
| d.      | With leased connection, your computer will be directly connecte        | u to the internet | usm     |
|         | a dedicated transmission line. ()                                      |                   | T A N I |
| е.      | Hotspots are sites that offer Internet access over a wireless local a  |                   | LAN     |
|         | by using a router connected to an Internet Service Provider. (         |                   |         |
|         |  | (05 m             |         |
|         |  | (Total 25 ma      | irks)   |
| Questi  | ion 02   |                   |         |
| (i)     |  |                   |         |
| a.      | Explain the purpose of TCP/IP protocol.                                | (02 m             | ıarks)  |
| b.      | List three (03) other protocols frequently used in the Internet.       | (03 m             | ıarks)  |
| (ii)    | Compare and contrast Static and dynamic web sites.                     | (06 m             | ıarks)  |
| (iii)   |  |                   |         |
| ` '     | Briefly describe collaborative website concept.                        | (02 m             | ıarks)  |
|         | Write two examples for collaborative web sites.                        | (02 m             | ıarks)  |
| (iv)    |  | `                 | ,       |
| a.      | Briefly explain the term "electronic commerce".                        | (02 m             | arks)   |
|         | List three (03) features of an ecommerce site                          | (03 m             |         |
|         | Social networking becomes more popular among Internet users.           | (05 11.           | · ·     |
| (v)     | · · · · · · · · · · · · · · · · · ·                                    | (02 m             | arke)   |
| a.      | List two(02) example for social networks.                              | •                 |         |
| b.      | Describe three (03) benefits of using social networks.                 | (03 m             | larks)  |
|         |  | (Total 25 ma      | ırks)   |
|         |  |                   | ·       |
| Questi  |  |                   |         |
| (i)     | List three goals of computer security.                                 | (03 m             | ,       |
| (ii)    | Explain the difference between hackers and crackers.                   | (04 m             | arks)   |
| (iii)   |  |                   |         |
| a.      | What do you mean by the term 'computer virus'?                         | (02 m             |         |
| b.      | List two (02) symptoms of a computer virus attack.                     | (04 m             | arks)   |
| (iv)    | A password can be used for user authentication to access some se web.  | cured resources   | in the  |
| a.      | List three (03) best practices that you can apply in creating strong p | oasswords. (03 n  | narks)  |
|         | Explain the following two types of attacks on passwords.               | (04 m             |         |
|         | i. Brute force attack  | `                 | ,       |
|         | ii. Dictionary attack  |                   |         |
| (v)     | II. Dionomi j action   |                   |         |
| ` '     | Briefly explain the term "Identity theft".                             | (03 m             | arkel   |
| a.<br>h | List two (02) steps that you can take to prevent identity theft.       | (02 m             | •       |
| þ.      | List two (02) steps that you can take to prevent identity there.       | (02 III           | шкај    |
|         |  | (Total 25 ma      | ırks)   |

## Question 04

- (i) Briefly explain following concepts and give two (02) examples per each. (08 marks)
  - a. Web browser
  - b. Search engine
- (ii) State two attributes for each of the following HTML tags.

(06 marks)

<FONT>

<TABLE>

< IMG >

(iii) Write HTML Code to generate the web page given bellow.

(11 marks)

(Consider that the name of the picture is "logo.jpg" and the link connects to the page http://www.sliate.ac.lk)

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## Question 05

(i)

a. What does CSS stand for? (02 marks)b. Briefly explain the purpose of using CSS in creating web sites. (02 marks)

(ii) Describe the purpose of using HTML Frames. (03 marks)

(iii) Sketch the output of the following code segment. (08 marks)

<TABLE Border="2" Align="Center" Width =50% Cellpadding="10">

<TR> <TH Colspan="3">HNDIT 1st year Semester I</TH></TR>

<TR><TH>Module Code</TH> <TH>Module Type</TH> <TH>Credits</TH> </TR>
<TR><TD>HNDIT 1201 </TD> <TD>Database Management
Systems</TD> <TD>02</TD> </TR>
<TR><TD>HNDIT 1202 </TD> <TD>Computer Hardware</TD> <TD>02</TD> </TR>
<TR><TD Colspan="2" Align="Center">Total</TD> <TD>04</TD> </TR>
</TABLE>

(iv) Write HTML code to produce the following output.

(10 marks)

| Name with Initials: | ************************************** |  |
|---------------------|--|--|
| Regstration No.     | # 1                                    |  |
| Select Course:      | ● HNDIT ● HNDA ● HNDE                  |  |
| Select Year         | 1styear +                              |  |
| Submit              | Sandel                                 |  |