AFRICA UNIVERSITY

A United Methodist-Related Institution

COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

CIS403 WEB BASED APPLICATION DEVELOPMENT

END OF SECOND SEMESTER EXAMINATIONS

APRIL/MAY 2018

LECTURER: MR MAGWAGWA

DURATION: 3 HRS

INSTRUCTIONS

You are required to answer questions as instructed in each section

Start **each** question on a new page in your answer booklet

Answer all questions in **Section A**

Answer any Three (3) questions from **Section B**

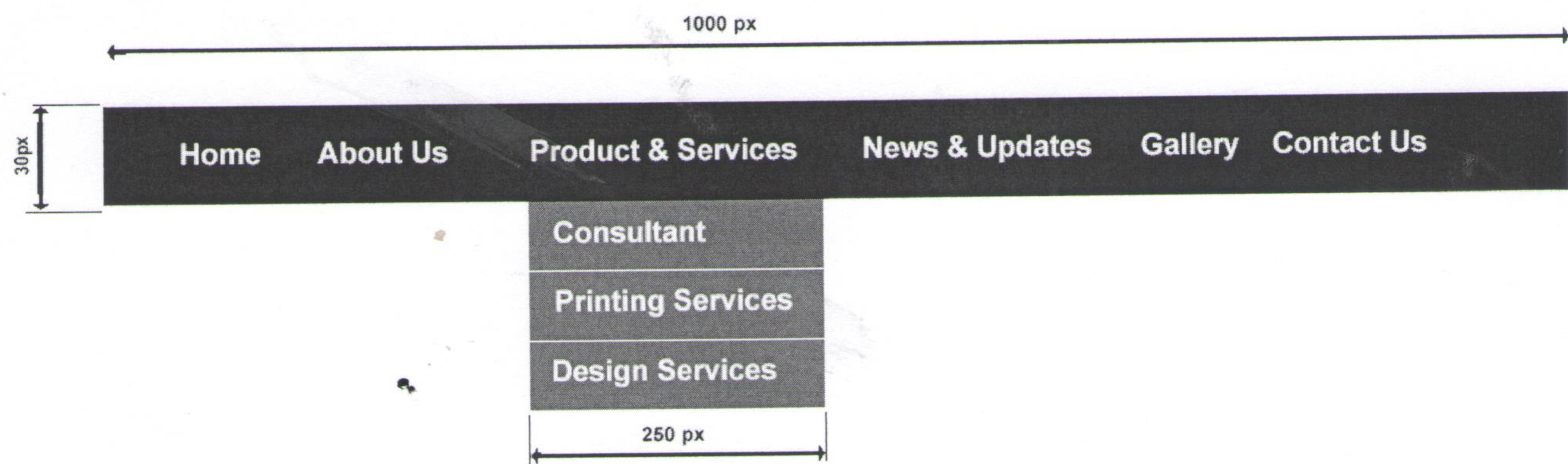Credit will be awarded for logical, systematic and neat presentations

SECTION A

Delta Printers is a commercial company in Zimbabwe that provides Consultancy, Printing and Design Services. Delta Printers do not have IT experts and outsource all of their IT services. They have approach you, a professional Web Developer requesting you to assist them in registering two domains and the development of their website.

Question 1

a) Recommend two domain names taking into consideration the two types of TLDs **[4 Marks]**

b) Which type of website will you develop for them? Justify your choice by giving the advantage over the other in their case **[6 Marks]**

c) With your vast knowledge of Domain Name System. Delta Printers would want to redirect the one domain to the other domain. Differentiate between A Record and Cname Methods (giving appropriate examples) **[5 Marks]**

Question 2

The above image is the proposed menu for the Delta Printer Website. Produce the HTML and CSS code for the menu. Use a separate CSS to the index file and the name of the CSS is style.css. Use the width and height dimensions indicated at the age of the image.

Additional information:
Background color for top level - #000000
Background color for dropdown level - #993300

Padding on menu links - 15px

Menu font size is 15px

Home - index.html; About - about.html; Product & Services - services.html; News & Update - news.html;   Gallery- gallery.html; Contact Us - contact.html   **[15 Marks]**

Question 3

Explain the following line of Code

a) $sql="INSERT INTO InventoryItem (name, description, quantity) VALUES ('$_POST[name]','$_POST[description]','$_POST[quantity]')";   **[2 Marks]**

b) @media screen and (max-width: 900px) {
   body{
   color: #DDD;
   text-transformation: uppercase;
   font-size: 14px;}
   }   **[2 Marks]**

c) <form method="POST" action="file_name.php">   **[2 Marks]**

d)   <?php
   $servername = "localhost";
   $username = "root";
   $password = "";
   $dbname = "myBusiness";

   $conn = new mysqli($servername, $username, $password, $dbname);

   if ($conn->connect_error) {
      die("Connection failed: " . $conn->connect_error);
   }   **[4 Marks]**

SECTION B

Question 4

a) Explain the concept of a website REQUEST and RESPONSE [5 Marks]

b) Describe types of multimedia files used in HTML [5 Marks]

c) Differentiate between HTML and HTML5 [10 Marks]

Question 5

a) Discuss any Four (4) factors that affect the website design process [4 Marks]

b) Explain the CMYK, RGB and HSB color systems and show where they are most applicable [9 Marks]

c) Differentiate between lossy and lossless images, give examples for each [7 Marks]

Question 6

a) What are meta tags? What are they used for? [5 Marks]

b) Identify and Explain the 3 components of a search engines [9 Marks]

c) Differentiate between White hat and Black hat search engine techniques [6 Marks]

Question 7

a) Identify and Explain **any** Five(5) Web hosting security threats [10 Marks]

b) Identify and Explain **any** Five(5) Web hosting security measures considered [10 Marks]