



Strathmore
UNIVERSITY

FACULTY OF INFORMATION TECHNOLOGY
BACHELOR OF SCIENCE IN BUSINESS INFORMATION TECHNOLOGY
END OF SEMESTER EXAMINATION
BBIT 2102: WEB DEVELOPMENT

DATE: May 2021

Time: 2 Hours

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

Question 1 (30mks)

- a. Define the following components: **(5mks)**
 - i. Server
 - ii. IP address
 - iii. DNS
 - iv. Port
 - v. ISP
- b. In your understanding, what would be the difference between a website and a web application. Give an example of each that you know. **(3mks)**
- c. Define a URL and outline the three major parts of a URL. Give an example that illustrates the three parts. **(4mks)**
- d. Outline two reasons why inline CSS is not advocated for in professional web development. **(2mks)**
- e. Variables are used a lot in scripting. How is the declaration of variables different in PHP as compared to JavaScript? Give an example for each case. **(3mks)**
- f. Define PDO and state three real benefits of using PDO when building PHP web applications based applications. **(5mks)**
- g. Using JavaScript Programming Language, write code snippet for a web-page that asks for a name from the user and outputs it. Ignore the Html Section. *Hint: Use a prompt and alert.* **(3mks)**
- h. Write an equivalent shorthand for the following CSS declarations **(5mks)**

```
{
background-color: red;
background-image: url(bg-graphic.png) ;
background-position: 10px 10px;
background-repeat: repeat-x;
background-scroll: fixed;
}
```

Question 2 (15mks)

- a. Write a sample PDO query to select a list of all names from a table called user. Assume the database connection has already been set **(5mks)**
- b. Write a html code snippet to that will produce the result below: **(2mks)**

In HTML you define a paragraph using the <p> element

- c. Using a diagram illustrate the Flexbox architecture outlining the various components. **(8mks)**

Question 3 (15mks)

- a. There are five basic CSS selector types used when styling our pages with CSS. Using examples to illustrate them, describing scenarios that would be ideal to use them. **(10mks)**
- b. Create a PHP class Staff. Define three fields/variables(name, title, wage). Add two functions clockIn() and clockOut() which picks the current date and time. **(5mks)**

Question 4 (15mks)

- a. You have been given the task by your supervisor to include a directions section to your web page, which can be used by anyone who would like to visit your offices. The steps you have been issued with are listed below. Write Html code snippet that will produce the following result. **(5mks)**

1	Drive to the end of the road
2	Turn right
3	Go straight across the first two roundabouts
4	Turn left at the third roundabout
5	The school is on your right, 300 meters up the road

- b. The following is a simple CSS rule modifying a web page's body. The CSS has some errors. Identify these errors and rewrite the code. **(5mks)**

```
body
COLOR: #000000
FONT-FAMILY: lucida-sans, sans-serif;
FONT-SIZE 10pt
FONT-STYLE: normal
FONT-VARIANT: normal
background-image: url(bkgnd.gif)
}
```

- c. Outline a sample JSON object gotten from querying an online movies API like OMDb. Outline at least five attributes of the chosen movie **(5mks)**

Question 5 (15mks)

- a. Differentiate between the following concepts in Web Development.
 - a. Server Side Code vs Client Side Code **(4mks)**
 - b. Function Parameters and Static Variable in PHP **(4mks)**
- b. Write PHP code snippet to connect to a database. Assume the host is 127.0.0.1, the db is test, user is root and no password. Include a character set of UTF8 **(7mks)**