



Strathmore
UNIVERSITY

SCHOOL OF COMPUTING AND ENGINEERING SCIENCES
BACHELOR IN BUSINESS INFORMATION TECHNOLOGY
END OF SEMESTER EXAMINATION
BBIT 2102 : WEB APPLICATION DEVELOPMENT

DATE: 25th JULY 2023

TIME: 2 Hours

Instructions:

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

Question One

(30 Marks)

a) Consider the HTML snippet below;

```
<body>
  <h1> BBT 2102 <span>@strathUni</span></h1>
  <span> APR - JULY 2023 </span>
  <em>(KE)</em>
  <h2>Learning how to develop websites</h2><p> Cool <em>stuff!</em></p>
</body>
```

- i. Draw a sketch of the expected browser output. (4 marks)
 - ii. Is it a Valid HTML document? Discuss. (4 marks)
- b) Consider the domain `mimi.coding.ninja`.
- i. Draw the DNS structure associated with it. (2 marks)
 - ii. Obed is in an argument with Hophni about registering a domain named `sisi.coding.ninja`. They come to you for technical consultation on the possibility of this. Develop a brief response of their request. (4 marks)
- c) Explain **two** trends in modern web development. (4 marks)
- d) Why is GIT beneficial in web application development. (2 marks)

_____ Question One continues on Page 2 _____

- e) Relate the following with respect to web application development;
- a) Mozilla Firefox and Apache (2 marks)
- b) POST and 200/OK (2 marks)
- f) Consider the following HTML element and write **one** CSS declaration that will assign a gray, 2px thick dotted border to the paragraph. (3 marks)
- `<p> Today is a gift, that is why it is called the present </p>`
- i. You notice that there isn't enough space between the text and the border write **one** declaration to fix this, let the space on top/bottom and left/right be 3px and 4px respectively. (3 marks)

Question Two (15 Marks)

Esther runs a real estate agency company - ERealtors. She track rental income using excel. A sample is shown below;

Name	National ID	Gender	Plot	House Number	Arrears
Tenant 1	1234	Male	AA44	1	Yes
Tenant 2	9876	Female	AA55	2	<u>No</u>
June 2023, Client : JimmyWayuni. ERealtors					

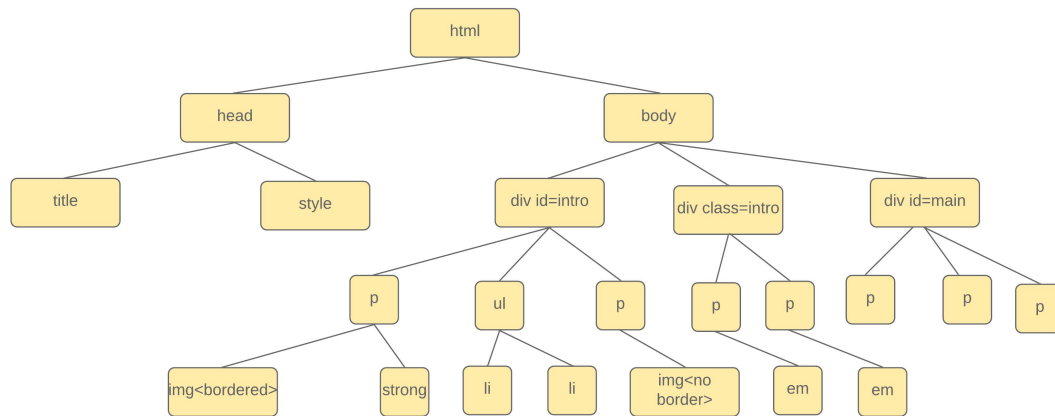
- a) What does HTML stand for? (1 mark)
- b) Giving **one** example, state the significance of semantic tags. (2 marks)
- c) Write the associate HTML snippet that will generate the table above. (6 marks)
- d) Design and implement a HTML form that can be used to capture the above data. (6 marks)

Question Three (15 Marks)

- a) Briefly discuss how to link your CSS and your HTML markup. (3 marks)
- b) Rewrite(*if necessary*) each of the following CSS snippets.
- i. `p {fontfamily: sans-serif;}` (2 marks)
- `p {fontsize: 1em;}`
- `p {lineheight: 1.2em;}`
- ii. `//style for quotations` (3 marks)
- `.emphasis{`
- `marginleft: 10px`
- `color: gray }`
- iii. `<strong color="purple">Courage! Bro and Sis. ` (2 marks)

_____ Question Three continues on Page 3 _____

- c) Consider the following document structure and state which element will be affected by the following CSS rules;



- i. `div#intro { color: red;}` (4 marks)
- ii. `.img{width : 50%;}` (1 mark)

Question Four

(15 Marks)

- a) What does PHP stand for? (1 mark)
- b) Bilbo is hiding in his house and has decided not to open the door to anyone unless it is a dwarf or wizzay, some mythical characters he relates with, in the event that the one knocking is not these two, then he screams in a bid to scare off that person. Using PHP code implement a generalized program that would mimic the description given and show the sample data as described. (6 marks)
- c) Calvin has two shirts (a red and blue one) , a pair of trousers, two bananas and thirty shillings in cash for his journey.
- i. Represent the above as a PHP array named `$calvins_items`. (3 marks)
- ii. Using a loop, print out the array in b) i) above, showing the item name and number. (5 marks)

Question Five

(15 Marks)

- a) Relate JavaScript and AngularJS (2 marks)
- b) Write a JavaScript function that takes two number arguments and returns their division(argument1 divide-by argument2). Your program should give an output for the following; (2,2), (2,1), (5,4) and (1,0). (8 marks)
- c) Briefly describe **five** technical roles in a web development company. (5 marks)

_____ *End of Examination* _____