University of Ruhuna - Faculty of Technology
Bachelor of Biosystems Technology Honours Degree
Level 1 (Semester II) Examination – November/December 2022
Academic Year - 2020/2021

Course Unit: BST1212 - Information Technology II - (Written)
Time Allowed: 1 hour and 30 minutes

Index No: ....

INSTRUCTIONS:

Number of pages: Eight (8)

Answer **all** questions and use **only** the given space.

Mobile phones and calculators are not permitted.

Question no: One (100 marks)

1. Write down three (3) recently introduced database applications and two (2) uses for each application. (15 marks)

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2. Briefly explain the typical functionality of a Database Management Systems. (18 marks)

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3. State five (5) advantages of using the database approach. (15 marks)

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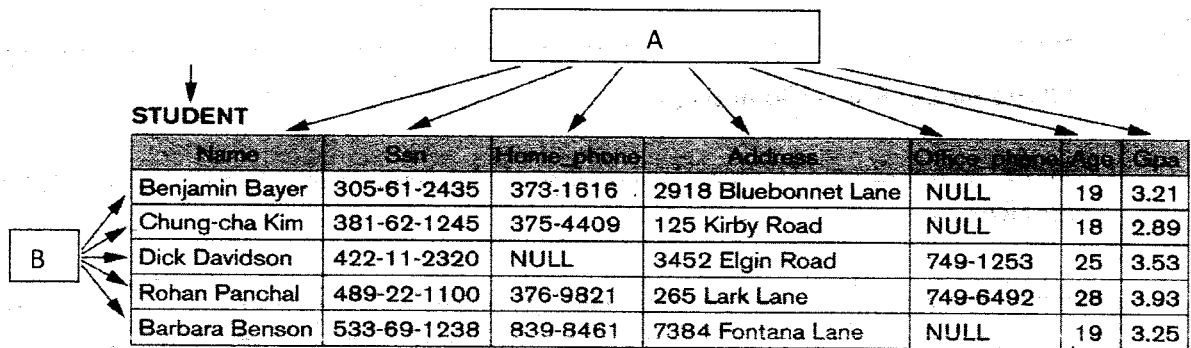
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4. The following table shows the components of a relational table. Answer to the following questions based on the table.

A

STUDENT

Name	Ssn	Home_phone	Address	Office_phone	Age	Gpa
Benjamin Bayer	305-61-2435	373-1616	2918 Bluebonnet Lane	NULL	19	3.21
Chung-cha Kim	381-62-1245	375-4409	125 Kirby Road	NULL	18	2.89
Dick Davidson	422-11-2320	NULL	3452 Elgin Road	749-1253	25	3.53
Rohan Panchal	489-22-1100	376-9821	265 Lark Lane	749-6492	28	3.93
Barbara Benson	533-69-1238	839-8461	7384 Fontana Lane	NULL	19	3.25

B ◄

i. Identify A and B components and briefly describe them. (12 marks)

A: ....

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B: ....

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ii. Write down the SQL statement to create the above table. (20 marks)

5. SQL categorizes its commands based on functionalities performed by them. State two broad categories A and B, and list the followings under them. (20 marks)

Select   Create   Drop   Update   Alter   Delete   Insert

A:	B:

Question no: Two (100 marks)

1. Briefly explain third and fourth generation computer programming languages and mention two examples each. (10 marks)

Third-Generation Languages: ....

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Fourth-Generation Languages: ....

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2. Write down the meaning of the following abbreviations with respect to the pogramming languages and web development. (18 marks)

Abbreviation	Meaning
WWW	
HTML	
XML	
XHTML	
COBOL	
FORTRAN	

3. State three (3) major types of website development tools and give two examples each. (15 marks)

Tool	Example

4. State two (2) differences between HTML elements and attributes. (8 marks)

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5. Mention three (3) differences between HTML and XHTML. (9 marks)

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6. Fill in the blanks based on the following left-hand side picture with the suitable answers. (40 marks)

My First Heading
 	
My first paragraph.
 	
This text is bold
 	
This text is italic
 	
This is ₛᵤᵦₛᶜʳᵢₚₜ and ˢᵘᵖᵉʳˢᶜʳⁱᵖᵗ
 	
This is a link
 	
   1. Coffee
   2. Tea
   3. Milk
	`<!DOCTYPE html>`
	
	`<..........>`
	
	`<..........>`
	
	`<......>....................................<...>`
	
	`<......>..................................<...>`
	
	`<...><......>`This text is ....`<.......><......>`
	
	`<....><i>......................................<...><...>`
	
	`<......>..............<sub> subscript<.........>` and
	
	`<.........>....................<.........><.....>`
	
	`<................... "http://www.ruh.ac.lk/ruh/">`
	
	`...........................................<.....>`
	
	`<....>`
	
	 `<.....>`Coffee`<......>`
	
	  `<....>...............<......>`
	
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Question no: Three (100 marks)

1. i. What is a variable? (5 marks)

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ii. State two (2) types of variables that can be divided according to their characteristics and briefly explain them. (12 marks)

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2. i. Briefly explain, what is 'descriptive analysis'? (5 marks)

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ii. Mention the steps of performing a descriptive analysis for variables in SPSS. (10 marks)

3. i. Define, what is 'central tendency'? (5 marks)

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ii. State three (3) most common measures of central tendency. (9 marks)

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iii. Calculate the above three (3) measures by using the following data of students' height. (12 marks)

154	139	154	192	180	140	154	155	192

4. Mention three (3) examples for nominal data. (6 marks)

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5. State four (4) rules that are to be considered when defining a variable name in SPSS. (12 Marks)

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6. What are four (4) main bars of overview of SPSS? (8 Marks)

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7. What are the types of measurement scales in SPSS? (8 Marks)

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8. State two (2) advantages and two (2) disadvantages of using SPSS for statistical analysis. (8 marks)

   Advantages

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   Disadvantages

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