

UNIVERSITY OF KELANIYA - SRI LANKA

FACULTY OF COMPUTING AND TECHNOLOGY

Bachelor of Science Honours in Computer Science Degree Examination - January 2021

Academic Year 2018/2019 - Semester I

Computer Science

CSCI11052 - Web Fundamentals

No. of Questions: Four (04)

No. of Pages: Two (02)

Time: Two (2) Hours

Answer All Questions.

- 01. (a), (i). Briefly explain the way of accessing web pages in the *Internet*.
 - (ii). List and briefly describe the usage of three (3) network layer protocols in the network domain.
 - (iii). List three (3) techniques that can be used to track online visitors on a website.
 - (b). Briefly explain each of the following terms.
 - (i). Proxy Server (ii). Web Crawler (iii). SEO
 - (c). (i). What is meant by 'Simple Object Access Protocol (SOAP)'?
 - (ii). List and briefly explain three (3) parts/elements of a SOAP message.
- 02. (a), (i). List three (3) web security issues with web services.
 - (ii). What is meant by 'Digital Signature'?
 - (iii). Briefly explain the difference between 'Asymmetric Encryption' and 'Symmetric Encryption'.
 - (b). Write down the JSON and XML codes to represent the following details.

Filibrolees	5				
ID	Name	Email			
EMP 01	Nimal	nimal@gmail.com			
EMP 02	Kasun	kasun@vahoo.com			

(c). List and briefly describe five (5,) web designing principles/ theories.

- 03. (a), (i). Define the acronyms, HTML and CSS.
 - (ii). Differentiate Inline elements from Block elements with suitable example tags.
 - (b). (i). Briefly explain the advantages of using *image sprites*.
 - (ii). What are the new features of HTML5 over HTML4? Give at least three (3) points.
 - (iii) . What are the advantages of SVG (Scalable Vector Graphic) over other image formats like JPEG and GIF? List at least three (3) advantages.
 - (iv). What are the differences between SVG and Canvas?
 - (c). Write necessary HTML code to generate the table as given below.

Western Province					
Gender	Gampaha	Colombo	Kaluthara		
I. Male II. Female	89	500	60		
	100	20	59		
Copy Rights © - prov.org ®					

- 04. (a), (i). What is meant by 'Mobile-first Approach'!
 - (ii). Briefly explain the usage of CSS grid view in responsive web designing.
 - (b) Briefly explain the difference between pseudo class and pseudo element. Give at least two (2) examples for each of them.
 - (c) . Write CSS rules to change the background colour and the font colour to satisfy each of the following requirements.
 - (i). Set font colour as 'red' for all text inside div elements and hl headings.
 - (ii). Set font colour as 'blue' for h2 headings, which are inside div elements with class 'cl'.
 - (iii). Set background colour as 'yellow' for all first child hl tags, which are inside div elements with class 'c2'.
 - (iv). Set font colour as '#ffOOOO' for all email type form fields.
 - (v). Set hover background colour as 'red' and font colour as white for all links inside nav tag with id as 'navbar'
 - (d). Briefly describe the effects of each of the following CSS properties.

(1). z-ındex	(11). border	(111). opacity
	END;	