

UNIVERSITY OF RUHUNA

BACHELOR OF COMPUTER SCIENCE (GENERAL) DEGREE LEVEL I (SEMESTER I)

EXAMINATION – JULY 2016

SUBJECT: COMPUTER SCIENCE

COURSE UNIT: CSC 113α (Internet Services and Web Development)

TIME: 1 hour

Answer two questions only.

1.

a.

- i. Explain briefly the usefulness of *DOCTYPE* declaration in an HTML document.
- ii. What is the use of *target* attribute in an HTML document?
- iii. Write an HTML code segment to open a linked document in a frame called "frame_one".

b.

- i. What are the functionalities of each of the following pairs of HTML tags?
 - a) `<pre> ..</pre>`
 - b) `<meta> ...</meta>`
 - c) `<caption> ...</caption>`
- ii. Write the required HTML code to display the following content in a web browser.

Qualifications:

- A. Database
- B. Web Programming
 - o HTML
 - o JavaScript
 - o Server Side Scripting
 - a. PHP
 - b. ASP
- C. OOP

You need to have the knowledge of basic concepts of OOP.

- c. Write an HTML code to create a form according to the following description.

User should be able to enter **first name**, **last name**, **date of birth**, **job category**, **marital status** and **contract type** in the form. **Job category** can be one or more of the categories *admin*, *finance*, *technical*, and *clerical*. **Marital status** must be one of *married*, *single*, or *divorced*. **Contract type** could be either *full-time* or *part-time*. The form must contain facilities to *submit* and *reset* the entries. You should use appropriate form elements and formatting to create the form.

2.

a.

- i. What is the purpose of client side scripting?
- ii. Write an appropriate HTML code to include an external JavaScript file into a HTML document.

b.

- i. Write the output of the following code:

```
<script type=" text/javascript">
var x=5;
document.write("<p> x before function call =" +x);
test();
document.write("<p> x after function call =" +x);

function test(){
var x=1000;
document.write("<p> x in function =" +x);
}

</script>
```

ii. Consider the following code:

```
<script type=" text/javascript">
for(i=0;i<10;i++){
document.write(i);
document.write("<br/>");
}
</script>
```

- (a) Write the output of the above code.
- (b) Modify the code above to print only the even numbers.

c. Consider the following scenario.

A rubber manufacturing factory uses pound as the measuring unit to handle all its' weight measurements. However when they release their product to the market they want to display the weight in kilograms.

Write a JavaScript function to convert the weight from pound to kilogram and display it by rounding it to the nearest Kilogram. An alert box should be used to display the value. Assume that a user will enter weight in a textbox where id="weight".

Note:

If the converted value of the weight is 12.312547Kg it should be displayed as 12 Kg.

If the weight is 12.61235Kg it should be displayed as 13Kg.

Assume that, 1 pound = 0.453592Kg.

3.

a.

- i. Write three advantages of computer networks?
- ii. List three different types of computer networks.
- iii. How does the Internet uniquely identify a computer connected to the Internet?
- iv. Write four services provided by an Internet Service Provider (ISP)?
- v. Write four examples for Internet Service Providers in Sri Lanka.

- b. Write the required external CSS(Cascading Style Sheet) rules to accomplish each of the following tasks.
- i. Set the margin, border and padding of images with id *img1* as follows:
Margin:10px, Border:3px,solid,blue Padding:20px,
 - ii. Set the font size and font style, of the first bold word of all the paragraphs in a document into 14px and italic respectively.
 - iii. Set the text color of all headings to #AABBCC and the background color of all headings to #223344
 - iv. Set the image *bgimg.jpg* as the background image of all the pages. The background image should not be repeated.
- c. Briefly explain how styles defined in the following code are applied to the output produced by it.

```
<head>
<style>
p{color:blue;text-align:center;}
.selected{background-color:yellow;}
#selected{ font-style: italic;}
.selected p{color:white;}
</style>
</head>
<body>
<p>Paragraph 1 </p>
<div class="selected">
<p> Paragraph 2 </p>
</div>
</body>
```

*****End*****