



**RAJATRATA UNIVERSITY OF SRI LANKA**  
**FACULTY OF APPLIED SCIENCES, MIHINTALE**

**B.Sc. (General) Degree in Information and Communication Technology**  
**Second Year-Semester I Examination – June/July 2018**

**ICT2404 - MULTIMEDIA AND WEB TECHNOLOGY**

**Time: Three (03) Hours**

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**Answer All Questions**

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1.

a) Write short notes on the followings:

- i. IP address and Domain Names (1 marks)
- ii. Server-side scripting languages.
- iii. Role of each component of the WAMP (1 marks)

b) Write HTML codes to perform the followings:

- i. To insert a hyper link to another section of the same page (2 marks)
- ii. To insert an on-line job application form, which consists of Name, Email, Mobile no, Date of Birth (selected from an auto picker), and Work experience as a number of years selected from a slider. Set maximum years of experience to 10 years. (10 marks)
- iii. To insert three unordered list items "Registration", "Login" and "News" into HEADER area. (2 marks)
- iv. To insert a movie clip, movie002.avi, with user controls. Set the screen height to 200 pixels and the width to 300 pixels. (4 marks)

2.

a) Explain how CSS can be used to provide a consistent visual design throughout an entire website. (4 marks)

b) Describe the following selectors with suitable examples:

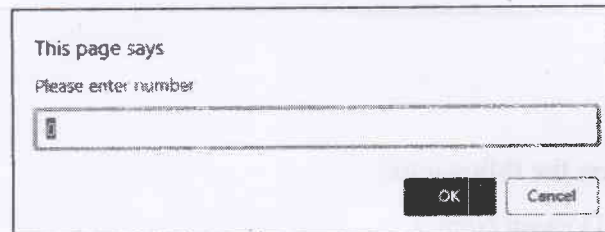
- i. Descendent selectors (2 marks)
- ii. Adjacent Sibling selectors (2 marks)

- c) Add appropriate CSS rules to the list items in question 1.b).iii above to appear it similar to the figure given below (Set each item's background colour, corner, text aligning and position ). (12 marks)



3.

- a) List four advantages of JavaScript (2 marks)
- b) Write JavaScript statements to perform the followings:
- i. to display the browser name and version (2 marks)
  - ii. to change the background colour (2 marks)
  - iii. to display a window similar to the given below (1 marks)



- c) Identify the syntax errors in the following JavaScript code. What would be the output when you make the corrections? (preceding numbers are for your reference only).

(5 marks)

```
1) <script >
2) var str = "sunil@abc.com";
3) for(i=0; i<str.length; i++)
4) {
5)   if (str.charAt(i)=="@")
6)     {var x=i;
7)     break;}
8)   if(x<str.length)
9)     user=str.substring(0,x);
10)  document.write(user );
11) </script>
```

- d) Write a JavaScript function to check whether all the fields are filled and if so verify the number of digits in the "Mobile no" field when user submit the form in question 1.b) ii. above (8 marks)

4.

- a) Briefly describe the n -tier architecture of web application. (2 marks)
- b) List the reasons to choose PHP as a server side script. (2 marks)

- c) Describe any two of the built in string related PHP functions with suitable examples. (3 marks)
- d) State the major difference between sessions and cookies in PHP (3 marks)
- e) Write PHP script to store the data in "on-line job application form" in question 1.b)ii above. (assume that database name is COMPANY and table name is APPLICANT. You are free to design a suitable table structure for form data). (10 marks)

5.

- a)
- i. An XML has 3 fundamental building blocks: elements, attributes, and values. Describe each with example. (3marks)
  - ii. An XML schema can be written as a DTD or as an XML schema. Discuss how XML schema overcomes drawbacks of DTD. (2 marks)
  - iii. What are the meanings of symbols "+", "|", "?" used in DTD declarations? (2 marks)
- b) Create DTD for the following structure:

**element:** id\_data

**element:** name

**element:** firstname

**element:** middlename (0 or more)

**element:** lastname

**element:** date of birth

**required attribute:** day

**required attribute:** month

**required attribute:** year

**element:** bloodgroup (optional) (7 marks)

- c) Write a valid XML file according to the above DTD specification. (6 marks)

-- End --