

V SEMESTER B.TECH. (INFORMATION TECHNOLOGY) MAKEUP EXAMINATIONS, DECEMBER 2016

SUBJECT: INTERNET TOOLS AND TECHNOLOGY [ICT 3103]

REVISED CREDIT SYSTEM (31/12/2016)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ✤ Answer ALL the questions.
- ✤ Missing data may be suitably assumed.
- 1A. Create the HTML page with three frames 'bottom' 'left' and 'right' as shown in Fig.Q.1A.
 - Bottom frame occupies 50% of the page and contains table.html displayed in the format as shown in Fig.Q.1A.
 - Left frame occupies 26% of the page and must contain Image_map.html. Image_map.html contains an image of MIT Manipal. On clicking the coordinates of a particular department, an individual page opens in the same frame which displays the name of the department clicked. Show for at least two departments.
 - Right frame occupies 74% of the page and must contain ordered_list.html displayed in the format as shown in Fig.Q.1A.



Fig.Q.1A

- **1B.** Write a complete VB script program that encodes English language phrases into pig Latin. To form a pig Latin phrase from English language phrase, tokenize the phase into an array of words. To translate each tokenized English words into a pig Latin word, place the first letter of the word at the end of the word and add letters 'ay' to it. For example 'the' becomes 'hetay'.
- 1C. Write appropriate XPATH wild card characters which does the following:
 - Selects the parent of the current node.
 - Selects an attribute.
- 2A. Create the HTML form given below in Fig.Q.2A (1). On clicking "Submit" the entered details must be displayed in tabular format as shown in Fig.Q.2A (2).



Fig.Q.2A(2)

- **2B.** What is a cache? Explain client caching with an example. Discuss its advantages and disadvantages along with cache controlled tags.
- **2C.** Generate a HTML form, where user can enter his name. On clicking submit button, the browser uses post method to send the entered information to the server. The server processes the request and displays the entered details in form_response.asp page. The form_response.asp file must display the entered name after appending strings "Hello" and "How are you today?"
- **3A.** Create Document Type Definitions (DTD) for a catalog of cars where each car has the child element make, model, year, color, engine, number_of_doors, transmission_type and accessories. The engine element has the child elements number_of_cylinders and fuel_system. The accessories element has attributes air_conditioning, power_windows, power_steering and power_brakes. All the mentioned attributes are required and has the possible values yes and no. Entities must be declared for names of popular car makes.
- **3B.** Write a complete Perl program to check if the entered number is an Armstrong number or not. Any number which equals to the cube of its digits is an Armstrong number. E.g. $3^3+7^3+1^3=371$.
- **3C.** Create an unordered list of four subjects [DAA, ITT, OS and AI]. On clicking a particular subject, the program should navigate to a new page named as

Page 2 of 4

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<subjectname>.html. Show the different target values in each navigation.

- **4A.** Explain the working of WSDL operations with a neat diagram.
- **4B.** Using Java Script string functions check if the entered strings are anagrams or not. Anagrams are jumbled letters of the original string to create interesting pseudonyms. E.g.: School master = The classrooms.
- **4C.** Perform the following operations:

•Convert the snippet given below to its respective ternary representation.

```
if ($var1 <= 26) {
    $result = ++$var2;
    } else {
    $result = 0;
    }
•Write the OUTPUT for the following Code snippet.
    @array = (0..9);
    print("@array\n");
    for ($index = 0; $index < @array; $index++) {
        if ($index == 3 || $index == 5) {
            next;
        }
        $array[$index] = "*";
        }
        print("@array\n");</pre>
```

- **5A.** Write a complete Java Script program to create the form given in Fig.Q.5A. On clicking "SignUP" perform the following validation.
 - Valid format for Email is abc12@hotmail.com.
 - Name should begin with an uppercase letter followed by one or more lowercase letters and should not contain any digits.
 - Ensure none of the fields are left blank.
 - Password should be of the form two digits followed by two uppercase followed by one special character followed by three lowercase letters.

If the validation is successful display the entered details or else display suitable error message accordingly.

User Form	Nalidated Using Javascript
First Name	Last Name
Your Email	
Re-enter Email	
New Password	
Birthday	
Month 💌 Day [Vear V
🔍 Female 🛛 🔍 Male	
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5B. Explain the following with suitable example:

	• Orchestration	
	• Choreography	2
	Enterprise Service Bus	3
5C.	Explain the working of client-server model with its advantages and disadvantages.	2