**IT 352 - WEB TECHNOLOGIES LAB (R18)**

**Semester V [Third Year]**

1. Develop your **Bio-data** form using forms and basic XHTML tags.
2. Write the CSS rules for a simple static website.
   * 1. Rule for a background image is **left top** of the page, **tiling horizontally**. The image should **remain in place** when the user scrolls up or down.
     2. All paragraphs text **1.5 times** larger than the base font of the system and colors it **red** (inline, embedded and external style sheet).
     3. Rule for all H1 & H2 elements a **padding of 0.5em**, a grooved border style and a **margin of 0.5em**. (Box Model)
3. Write a script which reads a four digit integer entered by the user in a prompt dialog and encrypt it as replace each digit by the sum of that digit plus 7 modulus 10 and then swap the first digit with the third, and swap the second digit with the fourth. Then output the encrypted data . Write a separate script that inputs an encrypted integer and decrypts it to from the original number
4. Write the following scripts using JavaScript
5. Search a number from a given list of numbers using **Binary Search**technique.
6. Sort given set of numbers using **Bubble Sorting** technique.
7. Write scripts for the following using recursive functions
8. Write a function to power which takes two arguments **m** and **n**, and returns **mn** (consider m and n are integers**).**
9. Factorial & finding nth Fibonacci
10. Write a script which reads two matrices from the prompt dialog, and do the matrix multiplication.
11. Write Scripts for the following events
12. Display digital clock using *onload* event.
13. To move text along with mouse pointer. The text will be inputted by a text field.
14. Design a simple web page containing user’s login information. Validate that form by using following conditions.
    1. Name should be entered.
    2. Password must be greater than or equal to 6 characters.
    3. Ignore the submit event.
    4. Prompt the user whether he wants to clear the data or not. If yes then only clear the login information from the text fields.
15. Write a script to dynamically change the color and font size of the *textarea*. Select color & size using select box.
16. Write java script which uses random number generation to create sentences. Use four arrays of strings called **article**, **noun**, **verb**, and **preposition**. Create a sentence by selecting a word at random from each array in the following order.

**Article, noun, verb, preposition, article, and noun.**

As each word is picked, concatenate it to the previous words in the sentence. The words should be separated by spaces. When the final sentence is output, it should start with capital letter and end with period. The program should generate 20 sentences and output them to an HTML TEXTAREA.

The arrays should be filled as follows.

**Article** array contains “**the**”, “**a**”, “**one**”, “**some**”, and “**any**”.

**Noun** array contains “**boy**”, “**girl**”, “**dog**”, “**town**”, and “**car**”.

**Verb** array contains “**drove**”, “**jumped**”, “**ran**”, “**walked**”, and “**skipped**”.

**Preposition** array contains “**to**”, “**from**”, “**over**”, “**under**”, and “**on**”.

1. Display all anchor elements in a given page into a XHTML table using DOM collections.
2. Display XML data in the XHTML table (Data Island).
3. Validate XML documents using DTD & XML Schema (XSD).
4. Display XML data in the XHTML table using XSL.
5. Write a program to demonstrate Generic and HTTP servlets.
6. Write a program to demonstrate cookies.
7. Write a program to demonstrate Sessions using HTTP servlets.
8. Create a Java web application to validate user login details by implementing the following.

* Create one JSP (ex: login.jsp ) in which you will submit your “user name” and “password”.
* And create one servlet (ex: ControllerServlet) that will check if the password entered by the user is correct or not. If the username & password entered by the user is correct then your controller servlet will redirect the client request to another servlet (ex: ValidUserServlet) which will display welcome message. If the password entered by the user is wrong then the request will be forwarded to your login.JSP page (Use Send Redirect in servlet).

1. Make a “Course registration” form using JSP, that collects a first name, last name, contact no, email address & course name.

* Create 4 text boxes for first name, last name, contact no, email address.
* Use 3 check boxes for multiple selection.
* Send the registration information to a servlet that displays it. (use HTTP POST method)

1. Create a bean to maintain student information and display the information in JSP page.