ST. XAVIER'S COLLEGE
KOLKATA
(AUTONOMOUS)

2nd SEMESTER EXAMINATION
JUNE - JULY 2021
M. Sc. COMPUTER SCIENCE

CMSM4257

LABORATORY 4: INTERNET TECHNOLOGIES I LAB

Monday, July 05, 2021
1:00 PM to 5:00 PM
4 hours
Full Marks : **80**

PLEASE READ THESE INSTRUCTIONS BEFORE YOU START WRITING:

1. Of the questions attempted, the answers to only the first required number of questions (as stipulated in the question paper) will be evaluated. **So please do not attempt extra questions**.

2. Use fountain pen or ball-point pen of **blue** or **black ink**.

3. Write **(not type)** the answers legibly, in your own words as far as practicable, on A4 size sheets.

4. Save the pages of your answer sheets (hand-written document) to a single PDF file and name the document accurately i.e. **Roll No_Paper Code.PDF** (example: 147_PH36141T).

5. Send the PDF file to the following email address **(in REPLY mode) within 30 minutes of the completion of the examination**: **cmsm42572021@sxccal.edu**

6. In the subject field of your email, please write "**Answer Script – Roll No, Paper Code**" (example: "Answer Script – 147, PH36141T").

7. The scanned answer scripts should have **enough clarity** to enable evaluation.

8. On top of each page **handwrite** the following information: **Name, Roll Number, Paper Code , Date,** and **Page Number**

9. No multiple submissions would be allowed.

The marks are given in **brackets [ ]** at the end of each question or part question.

The question paper consists of **4** pages.

Of the questions attempted, the answers to only the first required number of questions (as stipulated in the question paper) will be evaluated. So, PLEASE DO NOT ATTEMPT EXTRA QUESTIONS.

Instructions to the candidate:
1. **Keep all your files and images in a folder to be named with your roll number only.**
2. **Zip the folder and send it to the given email id. (No RAR files)**
3. **The main folder should contain sub folders having the question numbers attempted including the corresponding files into it. (e.g. Q1 , Q2 …. sub folders are kept under the main folder xxx where xxx is the student's roll no. in digit)**

GROUP A

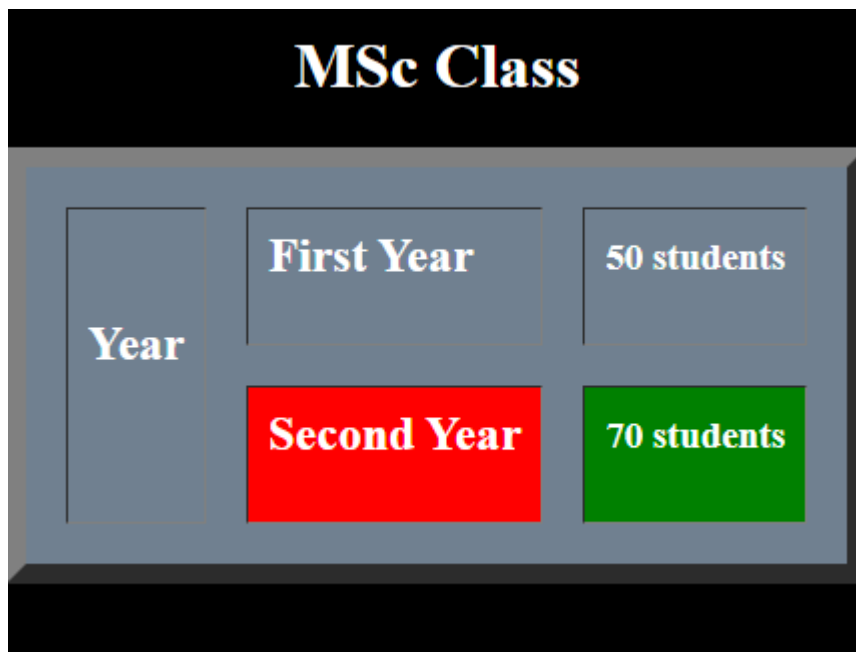Answer <u>ANY 4</u> questions.   (5×4=20)

The problems below should be developed in the form of a website.

1) Implement the following using html tables and CSS:

2) Using CSS implement a gallery of at least 6 images using transform/transition and hover event.

3) Using HTML Form and JavaScript display all the **3-digit Armstrong numbers**. The form should accept the lower range and upper range within which it should display the Armstrong numbers.

4) Using **JavaScript** implement the **Digital Clock. The digital clock should be shown at the centre of the desktop.** The above **execution must start whenever the page is loaded**.

5) Using Create a form using HTML accepting the details of a student having the following fields:
   Name (text box), Guardians Name (Text Box), Address (Text area), Gender (Radio button), Course(s) Applied for. (Check Box). Display the data filled up through the form in another HTML file using PHP.

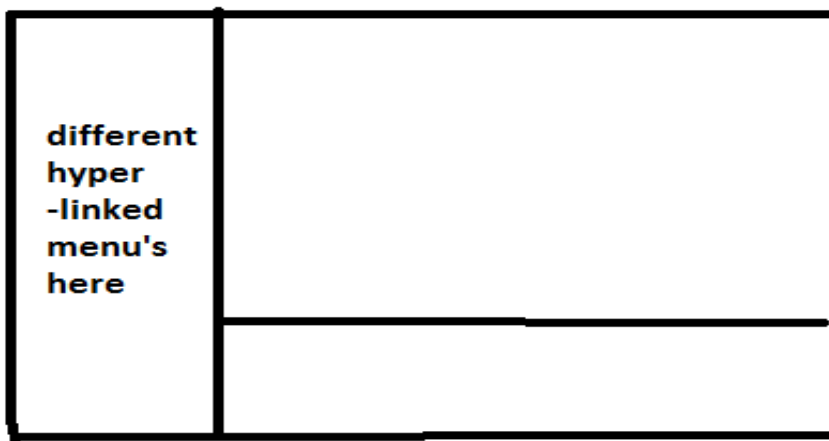6) Using HTML form an PHP input a String and check whether the entered string is a palindrome or not.

GROUP B

Answer <u>ANY 4</u> questions. (15×4=60)

7) Using HTML Form and JavaScript implement the following: **[5+5+5 (Design)]**

   a) Input 2 numbers in the text box. Display the Prime numbers within that range. Use timer to implement the code. Display the list in a text box.

   b) Input 2 numbers in the text box. Display the Fibonacci series within that range. Use timer to implement the code. Display the list in a text box.

8) Using **JavaScript implement a slideshow of pictures**, there should be at least 10 images for the slideshow. The time interval should be 5 seconds in between 2 images. There should be buttons to move to the previous and next images.

9) Create a Website for promoting '**CORONA SAFETY CAMPAIGN**, to be held from containing at least 5 Webpage's. Use Frames to design the Homepage as given below:

   i)

   Implement the following features in different pages:

   ii) Use Forms (for vaccine registration) with drop down menu, radio buttons, check boxes, text-area, contact number (**10 digit format, mandatory field**), Date of birth, submit-clear buttons. Using PHP display the input form data on a new html page.

   iii) Implement a table with rowspan and colspan attributes, giving a detailed schedule of the Vaccination events.

   iv) *Format one of the pages* **implementing** *External Style Sheets*

   v) Implement a Gallery page using *relevant* pictures (at least 8) using **CSS** image properties.

                                                      (5×3=15)

10) Using HTML Form and JavaScript implement the following:

   Create the Application as Pay-Slip of an Employee, having the following design.
The calculations will be as follows:
DA – 125% of Basic
HRA = 15% of Basic up to a maximum of 10000.
PF = 12% of (Basic+DA)
NET SALARY = Basic + DA + HRA – PF   **[10+5(design)=15]**

The form should accept the Employee's name and Basic Salary as an input. On clicking the 'Generate Pay Slip' button it would display the values of the relevant fields in the corresponding text boxes.

11) a) Write a program in JavaScript to display a **Multiplication table of 13**. (From 1 to 15)
    b) Using HTML Form and PHP check whether a given string is a **palindrome or not**.

    [5+5+5 (Design)]

12) Create a **Calculator** as displayed.
    Enter proper codes to the form to make the calculator operational.
    Multiple operations like 5+8-2 should be implemented.   **[10+5(design)=15]**

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