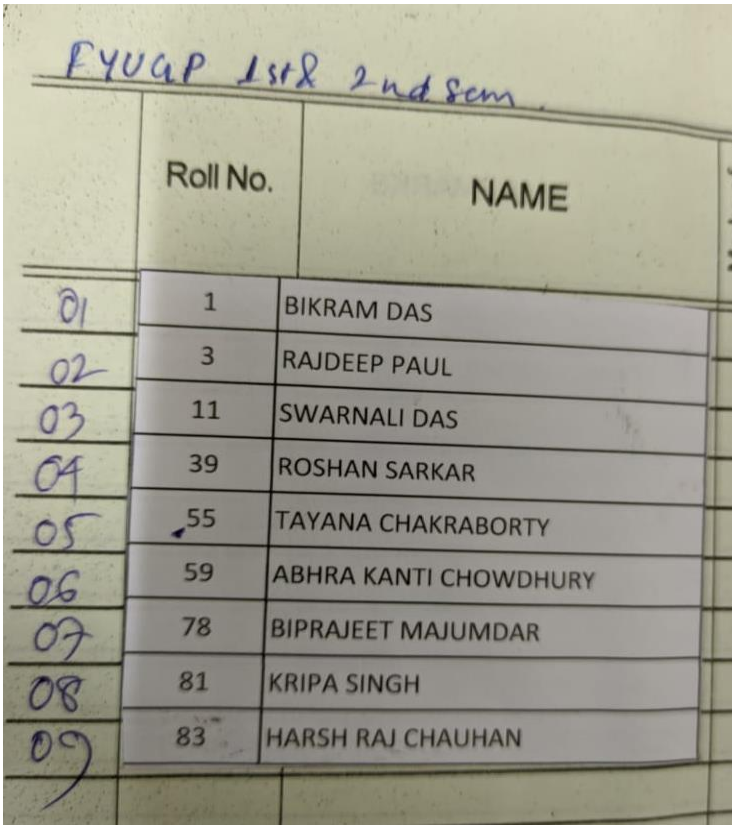
Department of Computer Science

Lumding College, Lumding

Semester	Paper Name	Paper Code
FYUGP 1st Sem	Computer Application	SEC0102303
FYUGP 2nd Sem	HTML Programming	SEC0206203
B.Com CBCS 3rd Sem	Computer Application In Business	COM– SEC-RC-3044
BSc. CBCS 3rd Sem	Office Automation Tools	CSC-SE-3014
BSc. CBCS 4th Sem	HTML Programming	CSC-SE-4024
BSc. CBCS 5th Sem(Core)	Project Work/ Dissertation	CSC-RE-5016
BSc. CBCS 5th Sem(SEC)	PHP Programming	CSC-SE-5024
BSc. CBCS 6th Sem	Programming with SCILAB	CSC-SE-6014

Students Enrollment in different semester



FYUGP 1st & 2nd Sem.

	Roll No.	NAME
01	1	BIKRAM DAS
02	3	RAJDEEP PAUL
03	11	SWARNALI DAS
04	39	ROSHAN SARKAR
05	55	TAYANA CHAKRABORTY
06	59	ABHRA KANTI CHOWDHURY
07	78	BIPRAJEET MAJUMDAR
08	81	KRIPA SINGH
09	83	HARSH RAJ CHAUHAN

1	SCAHIN DAS
2	BINOY DAS
3	PRODYUT CHAKRABORTY
5	PRIYANGSHU DAS
6	MONOJ SAHA
7	SHRUTI SARKAR
8	SMITA DEY
9	ARNAV ACHARJEE
10	AMIT KUMAR ACHARJEE
12	RINGJANADI KHEMPRAI
13	RIMPA SEAL
14	SUBARNA PAUL
15	JUTI MEDHI
16	RAJDEEP BHOWMICK
17	GAURAV KATELA
18	RAHUL MALAKAR
19	DEVIPRIYA MAJUMDER
20	DEBASISH SAIKIA
21	BIJOY CHOWDHURY
22	SOURAV KARMAKAR
23	SUVANKAR KURI
24	TITASH CHAKRABORTY
25	ANU BARUA
26	SUSMITA DAS
27	PAMMI PRASAD HARIJAN
28	ANURAG MATHULY
29	SAPTADIPA DUTTA
30	KUSUM KARMAKAR
31	RAJ MAJUMDER
32	ANAMIKA DAS
33	SOSHRING THOUSEN
34	BISHNU SAHA
35	KRISHANU PAUL

36	PRITAM DEY
37	ANKUSH DEB
38	BINEET MALAKAR
39	KANCHAN DEY
40	RAJ MAJUMDER
43	PAYAL DAS
44	B KRISHNA RAO
45	URMILA SONAR
46	PRIYANKA HAZARIKA
48	ABHAY KUMAR
49	PUJA CHANDA
50	RINGBOJAY KARIGAPSA
51	ARUP DEY
52	SHOUVIK DAS
53	AYAN ROY
54	DIPANITA PAUL
57	SUBHAJIT MAJUMDER
58	DEEPJYOTI SARMA
59	SUBHAM LODH
60	PRAPTI DEY
61	UJJAL KUMAR DAS
62	SRUTI TELEGU
63	DIYA MALAKAR
64	AMAN VERMA
65	B RAMESH
66	BARI YASH
67	NIKITA CHACHRA
68	SHUVAJIT DAS
69	PUSPA NEWAR
72	RAHUL SONAR
73	RAJ BASFORE

B.Sc IIIrd & IV th Sem

Roll No.	NAME
4	PRIYANJIT DAS
11	SAGAR DEY
15	SANDIP BHATTACHARJEE

B.Sc 5th Sem & 6th Sem

Roll No.	NAME
70	PRITAM RANJAN SARKAR
83	TANMOY DAS

Picture of the Project Report

Name : Chinmoyee Bhattacharjee

Semester : 1st Semester

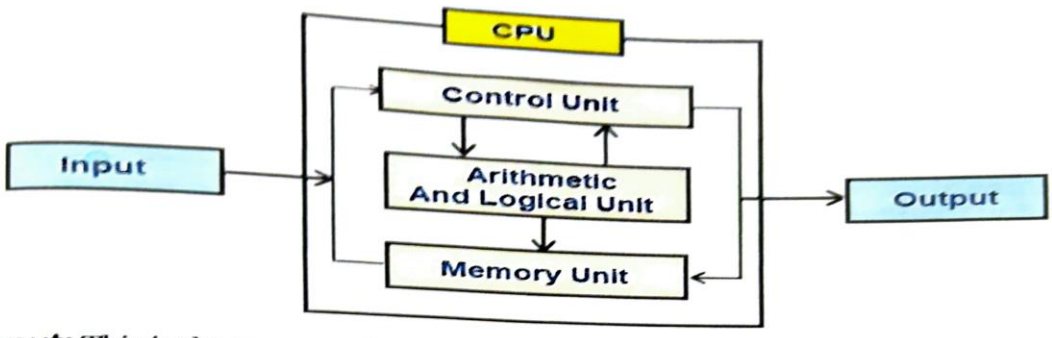
Roll no : US-231-304-0045

Paper Code : COM01100104 'Fundamentals & Programming

Submitted to : The Department of Computer Science, Lumding College, Lumding.

1. **Draw a diagram of a computer system. Also explain the functional unit in brief.**

Ans:-



1. **Input:** This is the process of entering data and programs in to the computer system. You should know that computer is an electronic machine like any other machine which takes as inputs raw data and performs some processing giving out processed data. Therefore, the input unit takes data from us to the computer in an organized manner for processing.

2. **Storage:** The process of saving data and instructions permanently is known as storage. Data has to be fed into the system before the actual processing starts. It is because the processing speed of Central Processing Unit (CPU) is so fast that the data has to be provided to CPU with the same speed. Therefore the data is first stored in the storage unit for faster access and processing. This storage unit or the primary storage of the computer system is designed to do the above functionality. It provides space for storing data and instructions.

The storage unit performs the following major functions:

All data and instructions are stored here before and after processing.

Intermediate results of processing are also stored here.

3. **Processing:** The task of performing operations like arithmetic and logical operations is called processing. The Central Processing Unit (CPU) takes data and instructions from the storage unit and makes all sorts of calculations based on the instructions given and the type of data provided. It is then sent back to the storage unit.

4. **Output:** This is the process of producing results from the data for getting useful information. Similarly the output produced by the computer after processing must also be kept somewhere inside the computer before being given to you in human readable form. Again the output is also stored inside the computer for further processing.
5. **Control:** The manner how instructions are executed and the above operations are performed. Controlling of all operations like input, processing and output are performed by control unit. It takes care of step by step processing of all operations inside the computer.

FUNCTIONAL UNITS

In order to carry out the operations mentioned in the previous section the computer allocates the task between its various functional units. The computer system is divided into three separate units for its operation. They are:-

1. **Input Unit:** This is responsible for accepting input data and instructions from users or other sources, such as external devices. It converts these inputs into a format that the computer can understand.
2. **Control Unit (CU):** The Control Unit manages and coordinates the operations of all the other units in the CPU. It fetches instructions from memory, decodes them, and executes them in the proper sequence.
3. **Arithmetic Logic Unit (ALU):** The ALU is responsible for performing arithmetic and logical operations, such as addition, subtraction, multiplication, and comparison. It is the "calculator" of the CPU.
4. **Memory Unit:** The memory unit stores data and instructions. RAM is used for temporary data storage during program execution, while ROM holds essential firmware and instructions for booting up the computer.
5. **Output Unit:** This unit is responsible for presenting results to the user or transmitting them to external devices. It converts the computer's processed data into a format that is understandable to users or other devices.
6. **Storage Unit:** This unit manages the long-term storage of data on devices like hard drives and SSDs. It handles reading and writing data to and from these storage devices

These functional units work together to enable the computer system to perform a wide range of tasks, from running applications to processing and storing data.

LUMDING COLLEGE

Estd. 1959

B.Sc. FYUGP Second Semester (SEC)

Paper Code: SEC0206203

Paper Name: HTML Programming

ASSIGNMENT

Submitted to
Department of
Computer Science,
Lumding College

Submitted by
Rajdeep Paul
Class Rollno: 03
B.Sc 2nd Sem,
Lumding College

1. To create a Time Table in HTML

Ans→

```
<html>
<head>
<title> Time Table </title>
<style>
body {
        font-family: Arial, sans-serif;
        background-color: yellow;
        margin: 0;
        padding: 0;
      }
h1{
    text-align: center;
    color: red;
  }
table{
        border-collapse: collapse;
        margin: 20px auto;
        background-color: orange;
        color: purple;
        border: 2px solid #dee2e6;
        box-shadow: 0 2px 4px rgba(0,0,0,0.1);
```

```
th,
td {
        border : 1 px  solid #dee2e6;
        padding :  10px;
        text-align : center ;
    }
th {
        background-color : pink ;
        color : red ;
    }
.highlight {
              background-color : #f8f9fa;
            }
.special {
              background-color :  #f0f0f0;
            }
</style>
</head>
```

LUMDING COLLEGE

ESTD: 1959

SUBJECT- COMPUTER APPLICATION IN BUSINESS

Submitted by — Susmita Das
Bijoy Chowdhury
B Ramesh
Class — B.com IIIrd Sem
Session — 2023-24

Write in Stepwise in comp-Word to Save a file.

Saving a file with file menu

Step 1: Click on the File menu.
Step 2: Go to the Save or Save As Button provided.
Step 3: Select the location where you want the file to be saved.
Step 4: Provide a name to the file or use the default one.
Step 5: Click on the Save button.

To Create a file.

Create a document

1. Open Word. Or, if Word is already open, Select File > New.
2. In the Search for online templates box, enter a search word like letter, resume, or invoice. Or, Select a category under the Search box like Business, Personal, or education.
3. Click a template to see a preview.
4. Select Create.

To rename a file

1. Hover your mouse over the copied document file icon in file explorer.
2. Right-click on the copy to open a context menu.
3. Choose 'Rename' from the menu.
4. The file name will be highlighted for editing.
5. Type in the new name for the copied document and press 'Enter' on your keyboard.

Write about MS-Excel.

1. Write the 5 functions in Excel?

⇒ These are the 5 basic Excel functions that everyone should know:

1. The Vlookup function.
2. The Concatenate function.
3. Text to columns.
4. Remove Duplicates.
5. Pivot tables.

Vlookup formula

Example:

You have a spreadsheet of burger shops, and each individual one is listed out in column A, with their street address, city, state, owner name, annual sales, and other information in adjacent columns.

Among your long list of burger shops, there are only a handful you need information about. You could theoretically scroll through the spreadsheet on try to sort/filter the list, or you could use a Vlookup function to pull out the exact pieces of information you need. There are many use cases for this formula, and the more you became familiar with it, the more often you'll find ways to use it to save yourself sometime.

How to set it up:

- Create a new table in another tab if you don't have one created already.
- In the first column, you'll have the "lookup value," which is the piece of information you're telling the formula to look for in your main spreadsheet. This information will need to be in the left-most column of the table you're telling the formula to look at, as it is in the first screenshot above.
- Then add the formula to the adjacent cell as follows:
  - =vlookup(lookup_value, table_array, col_index_num, [range_lookup])

LUMDING COLLEGE

Estd - 1959

· Paper Code → CSC-RC-4016

Paper Name → Computer System Architecture

ASSIGNMENT

Name — Sandip Bhattacharjee
Class → BSc 3rd Sem
GU Roll → US-221-304-0019
Class Roll → 15

1. Draw a diagram of a 4bit binary ripple counter using flip flops that trigger on the positive edge

The logical structure of a typical microprocessor can be described in several key components:

1. **Control Unit (CU)**:
   - Responsible for controlling the operations of the processor.
   - Decodes instructions fetched from memory and coordinates the execution of those instructions.
   - Generates control signals to manage data flow within the processor.

2. **Arithmetic Logic Unit (ALU)**:
   - Performs arithmetic and logical operations on data.
   - Executes operations such as addition, subtraction, AND, OR, etc.

3. **Registers**:
   - Small, high-speed storage units within the processor.
   - Used to store data temporarily during processing.
   - Includes various types of registers such as:
     - Instruction Register (IR): Holds the currently fetched instruction.
     - Program Counter (PC): Keeps track of the memory address of the next instruction to be fetched.
     - Accumulator (ACC): Stores intermediate results of arithmetic operations.
     - General-purpose registers: Used for various data manipulation tasks.

4. **Memory Interface**:
   - Facilitates communication between the processor and memory.
   - Includes components such as:
     - Memory Address Register (MAR): Holds the memory address of data to be accessed.
     - Memory Data Register (MDR): Temporarily holds data being transferred between memory and the processor.

5. **Instruction Decoder**:
   - Decodes the instruction fetched from memory into signals that control the various operations of the processor.

6. **Clock Generator**:
   - Provides timing signals to synchronize the operation of different components within the processor.
   - Determines the rate at which instructions are executed.

7. **Bus Interface Unit (BIU)**:
   - Facilitates communication between the processor and external devices via the system bus.
   - Manages the transfer of data between the processor and peripherals.

8. **Cache Memory**:
   - Small, high-speed memory located on the processor chip.

- Stores frequently accessed data and instructions to speed up processing.

9. **Pipeline**:
   - Divides the instruction execution process into multiple stages to increase throughput and efficiency.
   - Allows the processor to overlap the execution of multiple instructions.

These components work together to fetch, decode, execute, and store instructions and data, enabling the microprocessor to perform complex computations and control tasks efficiently.

LUMDING COLLEGE

ESTD - 1959

NAME - Sagar Dey.

Paper - CSC - SE - 4026

RollNo - US-221-304-0003

Class RollNo - 011

Paper Name - HTML Programming.

1. Create a time table in HTML for with the following details :
   a. Table Header
   b. Captions
   c. Styling table with different background and merging of colums and rows

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Timetable</title>
<style>
  table {
    width: 100%;
    border-collapse: collapse;
    margin-bottom: 20px;
  }
  th, td {
    border: 1px solid black;
    padding: 8px;
    text-align: center;
  }
  th {
    background-color: #333;
    color: white;
  }
  .day {
    background-color: #f2f2f2;
  }
  .subject {
    background-color: #ffc107;
  }
</style>
</head>
<body>

<h2>Timetable</h2>

<table>
 <caption>Week 1</caption>
 <tr>
  <th></th>
  <th>Monday</th>
  <th>Tuesday</th>
  <th>Wednesday</th>
  <th>Thursday</th>
  <th>Friday</th>
 </tr>
 <tr class="day">
```

```
      <td>Morning</td>
      <td class="subject">Maths</td>
      <td class="subject">Science</td>
      <td class="subject">English</td>
      <td class="subject">History</td>
      <td class="subject">Geography</td>
    </tr>
    <tr class="day">
      <td>Afternoon</td>
      <td class="subject">Physics</td>
      <td class="subject">Chemistry</td>
      <td class="subject">Biology</td>
      <td class="subject">Art</td>
      <td class="subject">Music</td>
    </tr>
  </table>

  <table>
    <caption>Week 2</caption>
    <tr>
      <th></th>
      <th>Monday</th>
      <th>Tuesday</th>
      <th>Wednesday</th>
      <th>Thursday</th>
      <th>Friday</th>
    </tr>
    <tr class="day">
      <td>Morning</td>
      <td class="subject">History</td>
      <td class="subject">Geography</td>
      <td class="subject">Maths</td>
      <td class="subject">Science</td>
      <td class="subject">English</td>
    </tr>
    <tr class="day">
      <td>Afternoon</td>
      <td class="subject">Art</td>
      <td class="subject">Music</td>
      <td class="subject">Physics</td>
      <td class="subject">Chemistry</td>
      <td class="subject">Biology</td>
    </tr>
  </table>

</body>
</html>
```

LUMDING COLLEGE

Lumding :: Hojai :: Assam

B.SC 5TH SEMESTER
COMPUTER SCIENCE

Submitted By:-

Pritam Ranjan Sarkar

Roll No.:-US-201-304-0083, Stream:- Science

Registration no.:-21037927

Session:-2023-24

&

Tanmoy Das

Roll No.:-US-201-304-0090, Stream:- Science

Registration no.:-21037934

Session:-2023-24

CONTENTS

1.INTRODUCTION

Online Admission System is aimed at developing an online admission application for a college. This system is an online system that can be accessed throughout the organization and outside as well with proper login provided. Our system has two type of accessing modes, administrator and user. Student management system is managed by an administrator. It is the job of the administrator to admit and monitor the whole process. When a user logs in to the system. He would only view details of the student. He can't perform any changes. The system has two modules. They are

User

Administrator

Students logging is to apply for the course by filling an application form provided by online. College principal/administrator logging in may also access/search information put up by the students.

7. Candidate gets the receipt of fees deposition.

Disadvantages of Present System:

1. Require much man power i.e. much efforts, much cost and hard to operate and maintain.
2. Since, all the work is done in papers so it is very hard to locate a particular student record when it is required.

2.2.2 PROPOSED SYSTEM

The main goal of the system is to automate the process carried out in the organization with improved performance and realize the vision of paperless admission. Some of the goals of the system are listed below:

- Manage large number of student details.
- Manage all details of student who registered for the course
- Create student accounts and maintain the data's effectively.
- View all the details of the students.
- Reduce the work load in interview the students for selection
- Activities like updating, modification, deletion of records should be easier.

2.2.3 ADVANTAGES OF PROPOSED SYSTEM

The aim of the proposed system is to address the limitations of the current system. The requirements for the system have been gathered from the defects recorded in the past and also based on the feedback from users of previous metrics tools. Following are the objectives of the proposed system:

- *Reach to geographically scattered students.* One of the important objectives of the admission system is communicate with all the students scattered geographically.
- *Reducing time in activities*. Reduce the time taken process the applications of students, admitting a student, conducting the online examination, verify student marks, and send call letters to selected students.
- *Centralized data handling*. Transfer the data smoothly to all the departments involved and handle the data centralized way.

LUMDING COLLEGE

PROJECT WORK ON COMPUTER SCIENCE

Lumding : Hojai : Assam.

5th Sem (Sk+III)

PYTHON TUTORIAL

Submitted By:-

VISHAL TELEGU

AMIT SARKAR

MRINMOY DAS

CONTENTS

MODULE FUNCTIONS

```
# FUnctions
def l_s(ar,item):
    i=0
    while i < len(ar) and ar[i]!=item :
        i+=1
    if i< len(ar):
        return i
    else:
        return False
def b_s(ar,item):
    beg=0
    last=len(ar)-1
    while(beg<=last):
        mid= (beg+last)/2
        if (item == ar[mid]):
            return mid
        elif (item >ar[mid]):
            beg=mid+1
        else:
            last= mid-1
```

ASSIGNMENT TOPIC

① To describe the seven layers of Network.
② To draw the OSI model diagram of seven layers.

Submitted by :-

NAME - RAJ KUMAR DEY

CLASS - B.SC 6th SEM

ROLL NO - US-201-304-0057

REGN. NO - 20061332

SUBJECT - COMPUTER SCIENCE.

① The seven Layers of Network are :-

I) The Physical Layer —

The physical layer is concerned with transmitting raw bits over a communication channel. The design issues have to do with making sure that when one side sends a 1 bit it is received by the other side as a 1 bit, not as a 0 bit. Typical questions here are what electrical signals should be used to represent a 1 and a 0, how many nanoseconds a bit lasts, whether transmission may proceeds simultaneously in both directions, how the initial connection is established, how it is torn down when both sides are finished, how many pins the network connector has, and what each pin is used for. These design issues largely deal with mechanical, electrical and timing interfaces, as well as the physical transmission medium, which lies below the physical layer.

II) The Data Link Layer —

The main task of the data link layer is no transform a raw transmission facility into a line that appears free of undetected transmission error. It does so by masking the real errors so the Network layer does not see them. It accomplishes this task by having the sender break up the input data into data frames (typically a few hundred or a few thousand bytes) and transmit the frames sequentially. If the service is reliable, the receiver confirms correct receipt of each frame by sending back an acknowledgement frame.

Another issue that arises in the data link layer : how to and most of the higher layers as

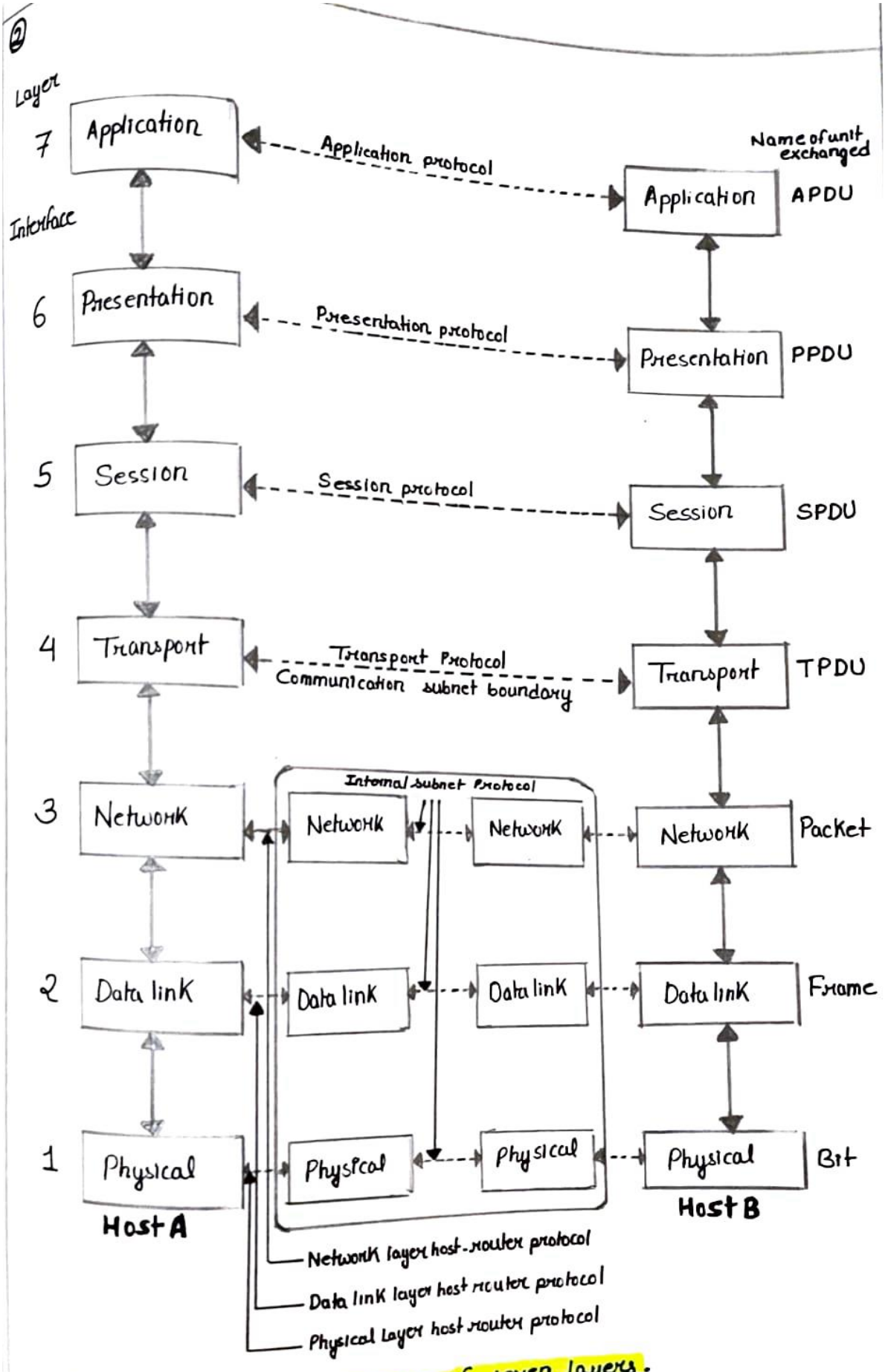
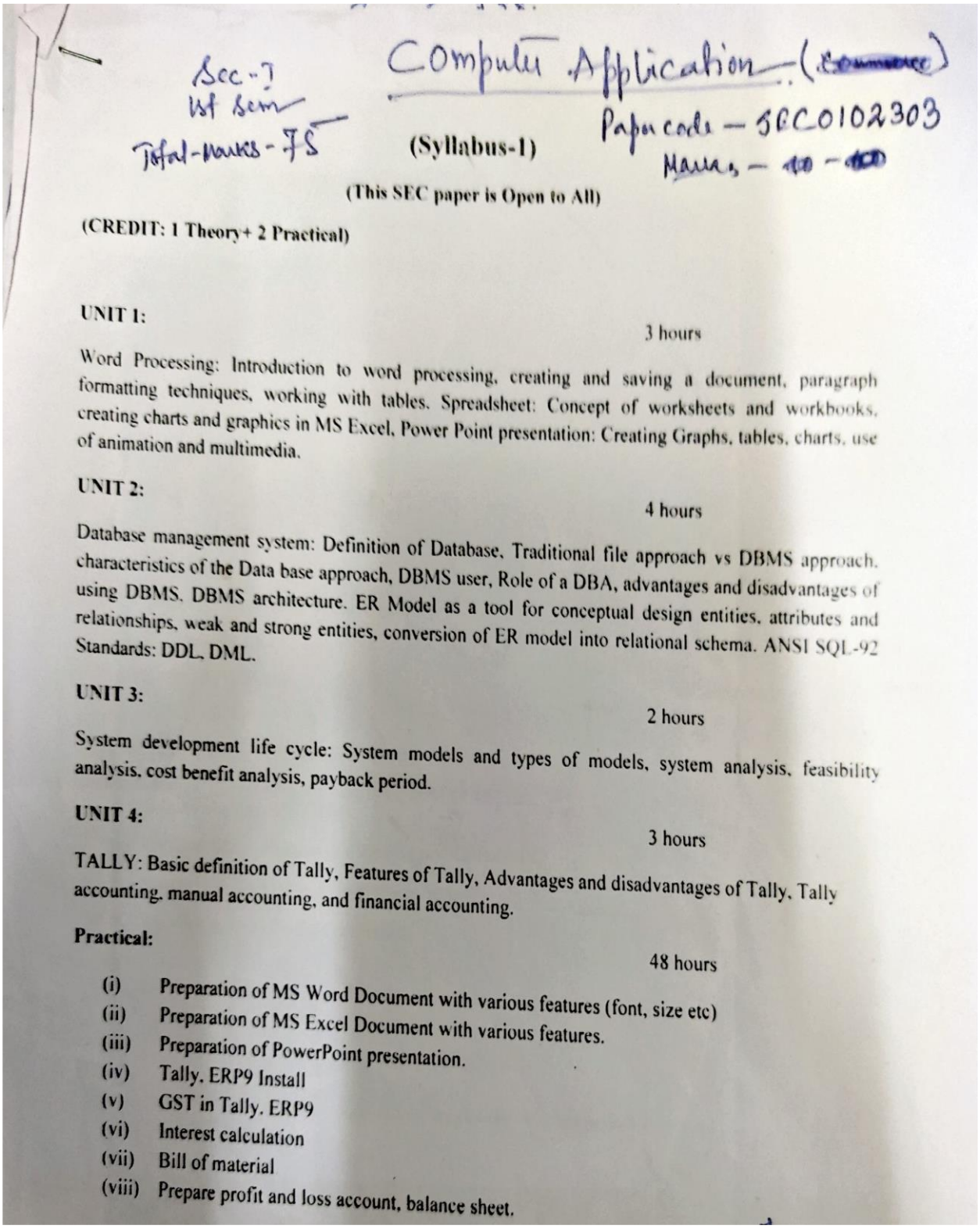


Figure : OSI model diagram of seven layers.

Picture of the Group Discussion & Workshop field held in the dept. of Computer Science in the session 2023-24



Sec-1
1st Sem
Total-Marks-75

Computer Application (Commerce)

Paper code – SEC0102303

Marks – 100

(Syllabus-1)

(This SEC paper is Open to All)

(CREDIT: 1 Theory+ 2 Practical)

UNIT 1: 3 hours

Word Processing: Introduction to word processing, creating and saving a document, paragraph formatting techniques, working with tables. Spreadsheet: Concept of worksheets and workbooks, creating charts and graphics in MS Excel, Power Point presentation: Creating Graphs, tables, charts, use of animation and multimedia.

UNIT 2: 4 hours

Database management system: Definition of Database, Traditional file approach vs DBMS approach, characteristics of the Data base approach, DBMS user, Role of a DBA, advantages and disadvantages of using DBMS, DBMS architecture. ER Model as a tool for conceptual design entities, attributes and relationships, weak and strong entities, conversion of ER model into relational schema. ANSI SQL-92 Standards: DDL, DML.

UNIT 3: 2 hours

System development life cycle: System models and types of models, system analysis, feasibility analysis, cost benefit analysis, payback period.

UNIT 4: 3 hours

TALLY: Basic definition of Tally, Features of Tally, Advantages and disadvantages of Tally, Tally accounting, manual accounting, and financial accounting.

Practical: 48 hours

(i) Preparation of MS Word Document with various features (font, size etc)
(ii) Preparation of MS Excel Document with various features.
(iii) Preparation of PowerPoint presentation.
(iv) Tally, ERP9 Install
(v) GST in Tally, ERP9
(vi) Interest calculation
(vii) Bill of material
(viii) Prepare profit and loss account, balance sheet.

HTML Programming
(CODE: CSC-SE-4024)

Total marks: 100 (Theory: 40, Practical: 40, Internal Assessment: 20)
02 Lectures 04 Practical, Credits 4 (2+2)
Theory: 20 Lectures **Practical**: 20 Lectures

Unit-I: Introduction (1 Lecture)

Unit-II: The Basics (2 Lecture)

- The Head, the Body
- Colors, Attributes
- Lists, ordered and unordered

Unit-III: Links (3 Lecture)

- Introduction
- Relative Links, Absolute Links
- Link Attributes
- Using the ID Attribute to Link Within a Document

Unit-IV: Images (3 Lecture)

- Putting an Image on a Page
- Using Images as Links
- Putting an Image in the Background

Unit V: – Tables (5 Lecture)

- Creating a Table
- Table Headers
- Captions
- Spanning Multiple Columns
- Styling Table

Unit VI – Forms (6 Lecture)

- Basic Input and Attributes
- Other Kinds of Inputs
- Styling forms with CSS

- Where To Go From Here

Book Recommended:

1. Introduction to HTML and CSS -- O'Reilly , 2010
2. Jon Duckett, HTML and CSS, John Wiely, 2012

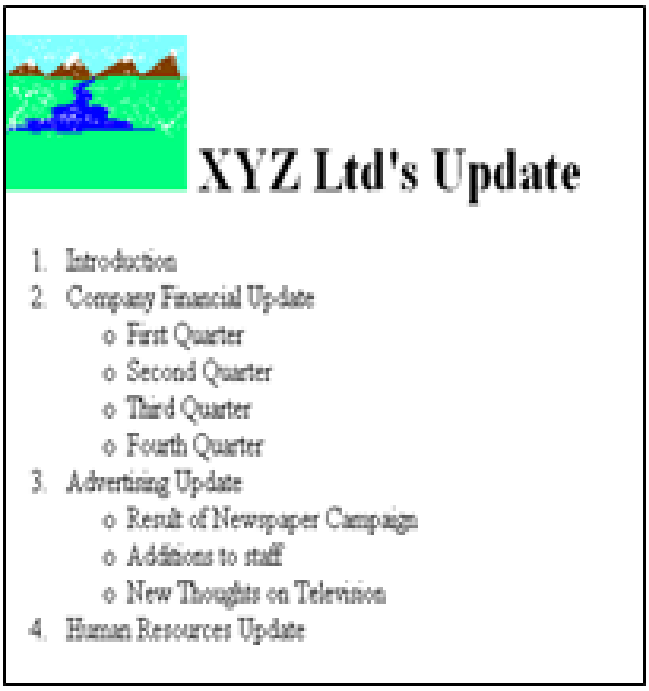
Software Lab Based on HTML:

Create an HTML document with the following formatting options:

I. Bold
II. Italics
III. Underline
IV. Headings (Using H1 to H6 heading styles)
V. Font (Type, Size and Color)
VI. Background (Colored background/Image in background)
VII. Paragraph
VIII. Line Break
IX. Horizontal Rule
X. Pre tag

Create an HTML document which consists of:

I. Ordered List
II. Unordered List
III. Nested List
IV. Image



A. Saftey Considerations
    1. Body substance isolation
    2. Sense safty
    3. Initial size-up
B. Initial Patient Assessment
    1. General Impression
    2. Unresponsiveness
        i. Alert to person, place and time
        ii. Verbal response to audible stimuli
        iii. Pain evokes verbal or physical response
        iv. Unresponsive to all stimuli
C. Patient Critical Needs
    1. Airway
    2. Breathing
        i. Use oxygen if indicated
        ii. Consider use of assisting with bag value mask
    3. Circulation
    4. Bleeding

Create an HTML document which implements Internal linking as well as External linking.

Create a table using HTML which consists of columns for Roll No., Student's name and grade.

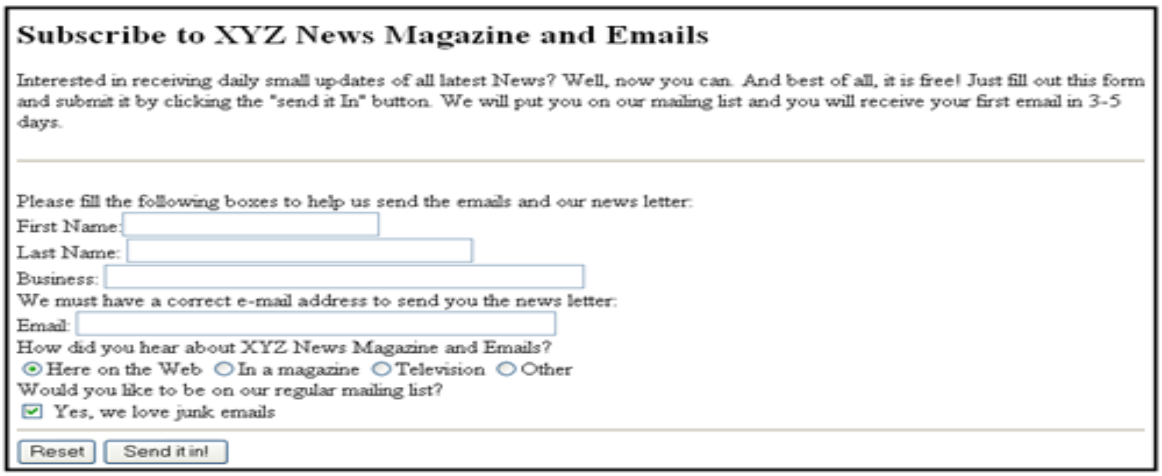
Result		
Roll No.	Name	Grade

Create a Table with the following view:

				Place an image here

Create a form using HTML which has the following types of controls:

I. Text Box
II. Option/radio buttons
III. Check boxes
IV. Reset and Submit buttons



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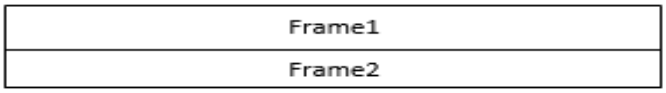
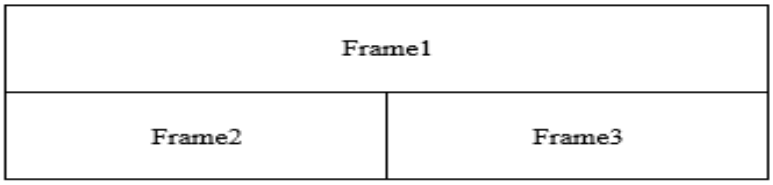
First Name:
Last Name:
Business:
We must have a correct e-mail address to send you the news letter:
Email:
How did you hear about XYZ News Magazine and Emails?
Here on the Web In a magazine Television Other
Would you like to be on our regular mailing list?
Yes, we love junk emails
Reset Send it in!

Create HTML documents (having multiple frames) in the following three formats:





B.COM-HC-3016: COMPUTER APPLICATIONS IN BUSINESS

Marks: 100 Credit: 6 Lectures: 52, Practical Lab 52

Objectives: To provide computer skills and knowledge for commerce students and to enhance the student understands of usefulness of information technology tools for business operations.

Unit 1: Word Processing (6 Lectures, Practical Lab 6)

Introduction to word Processing, Word processing concepts, Use of Templates, working with word document: Editing text, Find and replace text, Formatting, spell check, Autocorrect, Autotext; Bullets and numbering, Tabs, Paragraph Formatting, Indent, Page Formatting, Header and footer, Tables: Inserting, filling and formatting a table; Inserting Pictures and Video; Mail Merge: including linking with Database; Printing documents **Creating Business Documents using the above facilities**

Unit 2: Preparing Presentations (6 Lectures, Practical Lab 6)

Basics of presentations: Slides, Fonts, Drawing, Editing; Inserting: Tables, Images, texts, Symbols, Media; Design; Transition; Animation; and Slideshow.

Creating Business Presentations using above facilities

Unit 3: Spreadsheet and its Business Applications (12 Lectures, Practical Lab 12)Spreadsheet concepts, Managing worksheets; Formatting, Entering data, Editing, and Printing

a worksheet; Handling operators in formula, Project involving multiple spreadsheets, Organizing Charts and graphs

Generally used Spreadsheet functions: Mathematical, Statistical, Financial, Logical, Date and Time, Lookup and reference, Database, and Text functions

Unit 4: Creating Business Spreadsheet (12 Lectures, Practical Lab 12)Creating spreadsheet in the area of: Loan and Lease statement; Ratio Analysis; Payroll statements; Capital Budgeting; Depreciation Accounting; Graphical representation of data; Frequency distribution and its statistical parameters; Correlation and Regression

Unit 5: Database Management System (16 Lectures, Practical Lab 16)

Database Designs for Accounting and Business Applications: Reality- Expressing the Application; Creating Initial design in Entity Relationship(ER) Model; Transforming ER Model to Relational data model concepts; Implementing RDM design using an appropriate DBMS.

SQL and Retrieval of Information: Basic Queries in SQL; Embedded Queries in SQL; Insert, Delete and Update statements in SQL

DBMS Software: Environment; Tables; Forms; Queries; Reports; Modules;

Applying DBMS in the areas of Accounting, Inventory, HRM and its accounting, Managing the data records of Employees, Suppliers and Customers.

Note:

1. The General Purpose Software referred in this course will be notified by the University Departments every three years. If the specific features, referred in the detailed course above, is not available in that software, to that extent it will be deemed to have been modified.
2. There shall be a practical examination of 100 Marks (Practical-80 Marks, Viva-10 Marks and Work Book- 10 Marks) and duration of Examination shall be 3 Hrs.
3. Teaching arrangement need to be made in the computer Lab
4. There shall be four lectures per class and 4 Practical Lab periods per batch to be taught in computer Lab.

CSC-SE-3014: Office Automation Tools

02 Lectures 04 Practical, Credits 4 (2+2)
Theory: 20 Lectures Practical: 20 Lectures

UNIT 1: Introduction to open office/MS office/Libre office **(3 Lectures)**

UNIT 2: Word Processing **(6 Lectures)**

Formatting Text, Pages, Lists, Tables

UNIT 3: Spreadsheets **(6 Lectures)**

Worksheets, Formatting data, creating charts and graphs, using formulas and functions, macros, Pivot Table

UNIT 4: Presentation Tools **(5 Lectures)**

Adding and formatting text, pictures, graphic objects, including charts, objects, formatting slides, notes, hand-outs, slide shows, using transitions, animations.

REFERENCE BOOKS:

1. Sushila Madan , Introduction to Essential tools, JBA, 2009.
2. Anita Goel, Computer Fundamentals, Pearson, 2012

COMPUTER LAB BASED ON OFFICE AUTOMATION:

Practical List for WORD:

1. Create a **telephone directory**.

   - The heading should be 16-point Arial Font in bold
   - The rest of the document should use 10-point font size
   - Other headings should use 10-point Courier New Font.
   - The footer should show the page number as well as the date last updated.

2. Design a time-table form for your college.

   - The first line should mention the name of the college in 16-point Arial Font and should be bold.
   - The second line should give the course name/teacher's name and the department in 14-point Arial.
   - Leave a gap of 12-points.
   - The rest of the document should use 10-point Times New Roman font.
   - The footer should contain your specifications as the designer and date of creation.

3. Create the following one page documents.

   (a) Compose a note inviting friends to a get-together at your house, including a list of things to bring with them.

(b) Design a certificate in landscape orientation with a border around the document.

4. Create the following document: A newsletter with a headline and 2 columns in portrait orientation, including at least one image surrounded by text.

5. Convert following text to a table, using comma as delimiter

Type the following as shown (do not bold).
Color, Style, Item
Blue, A980, Van
Red, X023, Car
Green, YL724, Truck

Name, Age, Sex
Bob, 23, M
Linda, 46, F
Tom, 29, M

6. Prepare a grocery list having four columns (Serial number, the name of the product, quantity and price) for the month of April, 06.
   - Font specifications for Title (Grocery List): 14-point Arial font in bold and italics.
   - The headings of the columns should be in 12-point and bold.
   - The rest of the document should be in 10-point Times New Roman.
   - Leave a gap of 12-points after the title.
7. XYZ Publications plans to release a new book designed as per your syllabus. Design the first page of the book as per the given specifications.
   (a) The title of the book should appear in bold using 20-point Arial font.
   (b) The name of the author and his qualifications should be in the center of the page in 16-point Arial font.
   (c) At the bottom of the document should be the name of the publisher and address in 16-point Times New Roman.
   (d) The details of the offices of the publisher (only location) should appear in the footer.
8. Create the following one page documents.
   a) Design a Garage Sale sign.
   b) Make a sign outlining your rules for your bedroom at home, using a numbered list.

9.Enter the following data into a table given on the next page.

Salesperson	Dolls	Trucks	Puzzles
Amit	1327	1423	1193
Shivi	1421	3863	2934
Om	5214	3247	5467
Ananya	2190	1278	1928
Anupama	1201	2528	1203
Maharshi	4098	3079	2067

HTML PROGRAMMING
(CODE: CSC-SE-4024)

Total marks: 100 (Theory: 40, Practical: 40, Internal Assessment: 20)
02 Lectures 04 Practical, Credits 4 (2+2)
Theory: 20 Lectures **Practical**: 20 Lectures

Unit-I: Introduction (1 Lecture)

Unit-II: The Basics (2 Lecture)

- The Head, the Body
- Colors, Attributes
- Lists, ordered and unordered

Unit-III: Links (3 Lecture)

- Introduction
- Relative Links, Absolute Links
- Link Attributes
- Using the ID Attribute to Link Within a Document

Unit-IV: Images (3 Lecture)

- Putting an Image on a Page
- Using Images as Links
- Putting an Image in the Background

Unit V: – Tables (5 Lecture)

- Creating a Table
- Table Headers
- Captions
- Spanning Multiple Columns
- Styling Table

Unit VI – Forms (6 Lecture)

- Basic Input and Attributes
- Other Kinds of Inputs
- Styling forms with CSS
- Where To Go From Here

Book Recommended:

1. Introduction to **HTML** and CSS -- O'Reilly , 2010
2. Jon Duckett, HTML and CSS, John Wiely, 2012

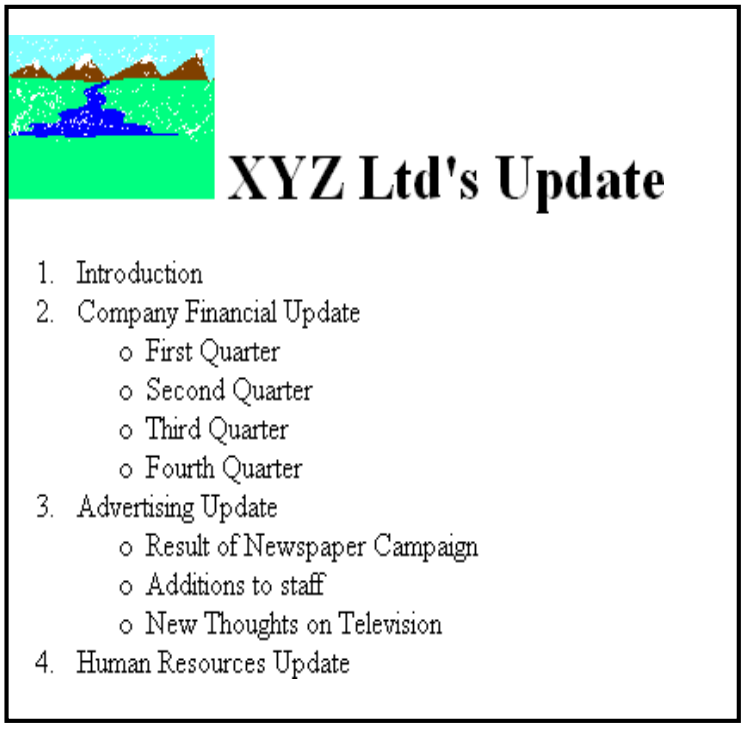
Software Lab Based on HTML:

Create an HTML document with the following formatting options:

I. Bold
II. Italics
III. Underline
IV. Headings (Using H1 to H6 heading styles)
V. Font (Type, Size and Color)
VI. Background (Colored background/Image in background)
VII. Paragraph
VIII. Line Break
IX. Horizontal Rule
X. Pre tag

Create an HTML document which consists of:

I. Ordered List
II. Unordered List
III. Nested List
IV. Image



A. Saftey Considerations
    1. Body substance isolation
    2. Sense safty
    3. Initial size-up
B. Intitial Patient Assessment
    1. General Impression
    2. Unresponsiveness
        i. Alert to person, place and time
        ii. Verbal response to audible stimuli
        iii. Pain evokes verbal or physical response
        iv. Unresponsive to all stimuli
C. Patient Critical Needs
    1. Airway
    2. Breathing
        i. Use oxygen if indicated
        ii. Consider use of assisting with bag value mask
    3. Circulation
    4. Bleeding

Create an HTML document which implements Internal linking as well as External linking.

Create a table using HTML which consists of columns for Roll No., Student's name and grade.

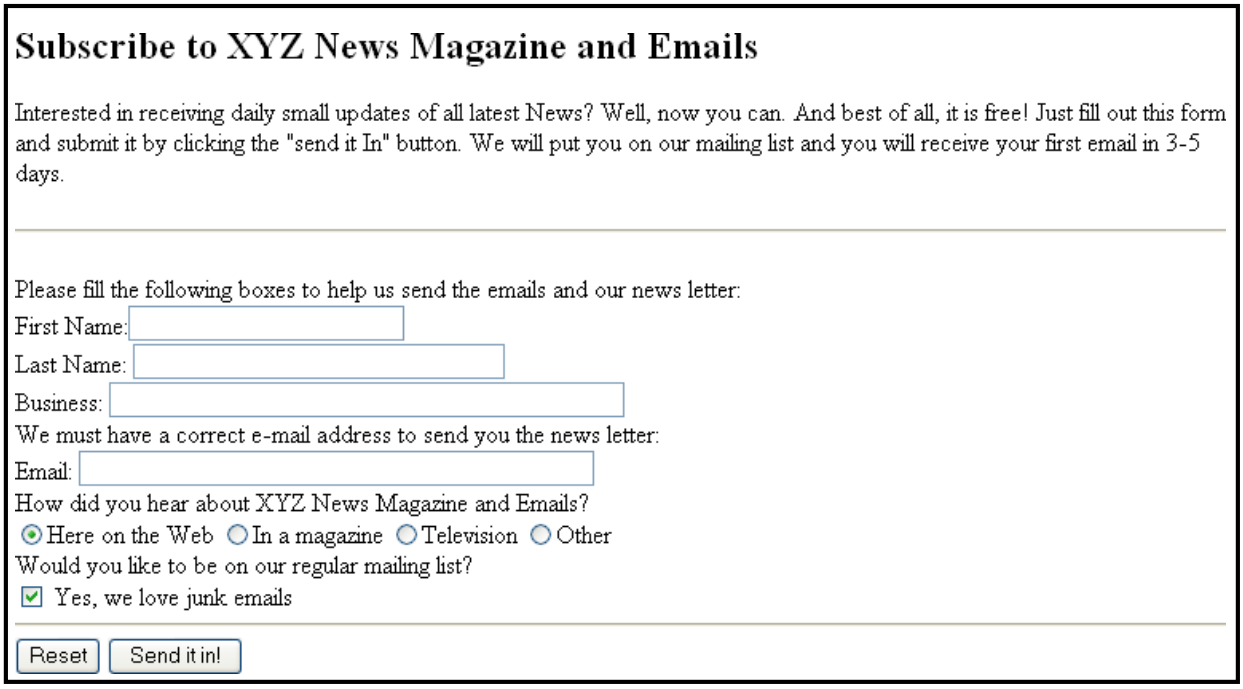
Result		
Roll No.	Name	Grade

Create a Table with the following view:

			Place an image here	

Create a form using HTML which has the following types of controls:

I. Text Box
II. Option/radio buttons
III. Check boxes
IV. Reset and Submit buttons



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Please fill the following boxes to help us send the emails and our news letter:

First Name:

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Business:

We must have a correct e-mail address to send you the news letter:

Email:

How did you hear about XYZ News Magazine and Emails?

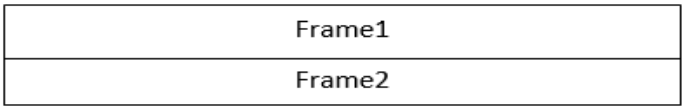
Here on the Web In a magazine Television Other

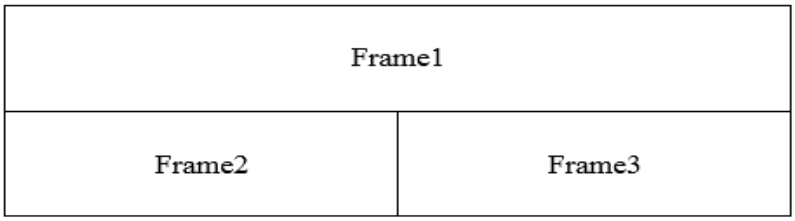
Would you like to be on our regular mailing list?

Yes, we love junk emails

Reset Send it in!

Create HTML documents (having multiple frames) in the following three formats:





SEMESTER-V: DSE

1. Project Work/Dissertation

(CODE: CSC-RD-5016)

Total marks: 150 (Theory: 80, Practical: 40, Internal Assessment: 30)
4 Lectures 4 Practical, Credits 6 (4+2)
Theory: 60 Lectures, Practical: 60 Lectures

- This option is to be offered only in 6th Semester.
- The students will be allowed to work on any project based on the concepts studied in core/elective or skill based elective courses.
- The group size should be maximum of three (03) students.
- Each group will be assigned a teacher as a supervisor who will handle both their theory as well lab classes.
- A maximum of Four (04) projects would be assigned to one teacher.

- Theory classes will cover project management techniques.

PHP PROGRAMMING

(CODE:CSC-SE-5024)

Total marks: 100 (Theory: 40, Practical: 40, Internal Assessment: 20)
02 Lectures 04 Practical, Credits 4 (2+2)
Theory: 20 Lectures Practical: 20 Lectures (1 +2 Lab)

Introduction to PHP: (3L)

- PHP introduction, inventions and versions, important tools and software requirements (like Web Server, Database, Editors etc.)
- PHP with other technologies, scope of PHP
- Basic Syntax, PHP variables and constants
- Types of data in PHP , Expressions, scopes of a variable (local, global)
- PHP Operators : Arithmetic, Assignment, Relational , Logical operators, Bitwise , ternary and MOD operator.
- PHP operator Precedence and associativity

Handling HTML form with PHP: (2L)

- Capturing Form Data
- GET and POST form methods
- Dealing with multi value fields
- Redirecting a form after submission

PHP conditional events and Loops: (3L)

- PHP IF Else conditional statements (Nested IF and Else)
- Switch case, while ,For and Do While Loop
- Goto , Break ,Continue and exit

PHP Functions: (4L)

- Function, Need of Function , declaration and calling of a function
- PHP Function with arguments, Default Arguments in Function
- Function argument with call by value, call by reference
- Scope of Function Global and Local

String Manipulation and Regular Expression: (4L)

- Creating and accessing String , Searching & Replacing String
- Formatting, joining and splitting String , String Related Library functions
- Use and advantage of regular expression over inbuilt function

- Use of preg_match(), preg_replace(), preg_split() functions in regular expression

Array: (4L)

- Anatomy of an Array ,Creating index based and Associative array ,Accessing array
- Looping with Index based array, with associative array using each() and foreach()
- Some useful Library function

Software Lab Based on PHP:

1. Create a PHP page using functions for comparing three integers and print the largest number.
2. Write a function to calculate the factorial of a number (non-negative integer). The function accept the number as an argument.
3. WAP to check whether the given number is prime or not.
4. Create a PHP page which accepts string from user. After submission that page displays the reverse of provided string.
5. Write a PHP function that checks if a string is all lower case.
6. Write a PHP script that checks whether a passed string is palindrome or not? (A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam or nurses run)
7. WAP to sort an array.
8. Write a PHP script that removes the whitespaces from a string.
   Sample string : 'The quick " " brown fox'

   Expected Output : Thequick""brownfox
9. Write a PHP script that finds out the sum of first n odd numbers.
10. Create a login page having user name and password. On clicking submit, a welcomemessage should be displayed if the user is already registered (i.e.name is present in the database) otherwise error message should be displayed.
11. Write a PHP script that checks if a string contains another string.
12. Create a simple 'birthday countdown' script, the script will count the number of days between current day and birth day.
13. Create a script to construct the following pattern, using nested for loop.
    *
    * *
    * * *
    * * * *
    * * * * *
14. Write a simple PHP program to check that emails are valid.
15. WAP to print first n even numbers.
16. $color = array('white', 'green', 'red")
    Write a PHP script which will display the colors in the following way :
    Output :
    white, green, red,

    - green
    - red
    - white
17. Using switch case and dropdown list display a “Hello” message depending on the language selected in drop down list.

18. Write a PHP program to print Fibonacci series using recursion.
19. Write a PHP script to replace the first 'the' of the following string with 'That'.

Sample : 'the quick brown fox jumps over the lazy dog.'

Expected Result : That quick brown fox jumps over the lazy dog.

Semester-VI: SEC Paper 4

(CODE: CSC-SE-6014): Programming with SCILAB (1+2Labs)

Total marks: 100 (Theory: 40, Practical: 40, Internal Assessment: 20)
02 Lectures 04 Practical, Credits 4 (2+2)
Theory: 20 Lectures Practical: 20 Lectures

Unit I- Introduction to Programming: Components of a computer, working with numbers, Machine code, Software hierarchy. (2L)

Unit II- Programming Environment: SCILAB Environment, Workspace, Working Directory, Expressions, Constants, Variables and assignment statement, Arrays. (3L)

Unit III- Graph Plots: Basic plotting, Built in functions, Generating waveforms, Sound replay, load and save. (3L)

Unit IV- Matrices and Some Simple Matrix Operations, Sub- Matrices. (4L)

Unit IV- Procedures and Functions: Arguments and return values, (4L)

Unit V-Control Statements: Conditional statements: If, Else, Else-if, Repetition statements: While, for loop. (3L)

Unit VI- Manipulating Text: Writing to a text file, Reading from a text file, Randomising and sorting a list, searching a list. (4L)

Recommended Books:

1. M.Affouf, SCILAB by Example , CreateSpace Independent Publishing Platform,2012
2. H. Ramchandran, A.S. Nair, SCILAB , S.Chand, 2011

Software Lab Based on SCILAB:

1. Write a program to assign the following expressions to a variable A and then to print out the value of A.
   a. $(3+4)((5+6)$
   b. $2\pi^2$
   c. $\sqrt{2}$
   d. $(0.0000123 + 5.67\times10^{-3}) \times 0.4567\times10^{-4}$

2. Celsius temperatures can be converted to Fahrenheit by multiplying by 9, dividing by 5, and adding 32. Assign a variable called C the value 37, and implement this formula to assign a variable F the Fahrenheit equivalent of 37 Celsius.
3. Set up a vector called N with five elements having the values: 1, 2, 3, 4, 5. Using N, create assignment statements for a vector X which will result in X having these values:
   a. 2, 4, 6, 8, 10
   b. 1/2, 1, 3/2, 2, 5/2
   c. 1, 1/2, 1/3, 1/4, 1/5
   d. 1, 1/4, 1/9, 1/16, 1/25
4. A supermarket conveyor belt holds an array of groceries. The price of each product (in pounds) is [0.6, 1.2 ,0.5, 1.3] ; while the numbers of each product are [3, 2 ,1 ,5]. Use MATLAB to calculate the total bill.

5. The sortrows(x) function will sort a vector or matrix X into increasing row order. Use this function to sort a list of names into alphabetical order.
6. The "identity" matrix is a square matrix that has ones on the diagonal and zeros elsewhere. You can generate one with the eye() function in MATLAB. Use MATLAB to find a matrix B, such that when multiplied by matrix A=[1 2; -1 0] the identity matrix I=[1 0; 0 1] is generated. That is A*B=I.

7. Create an array of N numbers. Now find a single MATLAB statement that picks out from that array the 1,4,9,16,…,√Nth entries, i.e. those numbers which have indices that are square numbers.
8. Draw a graph that joins the points (0,1), (4,3), (2,0) and (5,-2).
9. The seeds on a sunflower are distributed according to the formula below. Plot a small circle at each of the first 1000 co-ordinates :

$$r_n = \sqrt{n}$$
$$\theta_n = \frac{137.51}{180}\pi n$$

10. Calculate 10 approximate points from the function y=2x by using the formulae:
    i. $x_n = n$
    ii. $y_n = 2n + \text{rand} - 0.5$

    Fit a line of best fit to these points using the function polyfit() with degree=1, and generate co-ordinates from the line of best fit using polyval(). Use the on-line help to find out how to use these functions. Plot the raw data and the line of best fit.
11. Calculate and replay 1 second of a sinewave at 500Hz with a sampling rate of 11025Hz. Save the sound to a file called "ex35.wav". Plot the first 100 samples.
12. Calculate and replay a 2 second chirp. That is, a sinusoid that steadily increases in frequency with time, from say 250Hz at the start to 1000Hz at the end.
13. Build a square wave by adding together 10 odd harmonics: 1f, 3f, 5f, etc. The amplitude of the nth harmonic should be 1/n. Display a graph of one cycle of the result superimposed on the individual harmonics.
14. Write a function called FtoC (ftoc.m) to convert Fahrenheit temperatures into Celsius. Make sure the program has a title comment and a help page. Test from the command window with:
    i. FtoC(96)
    ii. lookfor Fahrenheit
    iii. help FtoC
15. Write a program to input 2 strings from the user and to print out (i) the concatenation of the two strings with a space between them, (ii) a line of asterisks the same length as the concatenated strings, and (iii) the reversed concatenation. For example:
    i. Enter string 1: Mark

ii. Enter string 2: Huckvale
iii. Mark Huckvale
iv. ******
v. elavkcuH kraM


GPS Map Camera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COMPUTER SCIENCE