Computer Science-12
Final Practical / Project Work Questions

COMPUTER LAB PRACTICAL / PRESENTATION WORK

1. Create a database to store the student's information and maintain their records (using MS-Access with table, form, query and report).

2. Design a database for Quiz management system in MS Access.

3. Design database and database table with SQL statement database
i. Working with DDL and DML statement (CREATE, DROP, ALTER SELECT, INSERT, UPDATE and DELETE database and database table and records)

4. Construction of twisted pair cable and Create a LAN or Router configuration.

5. Install Packet tracer software or Any Desk software through access and control another PC (Share files, folder, printer in network)

6. Create an overview of your school's static website with student registration form and add client slide validation using html, CSS and JavaScript.

7. Design the login form having provision of creating, displaying, selecting, updating and deleting user's name and password of the user. Using PHP.

8. Write a menu based program in C language for Library management system which has a following features.
   a. Inserting a records   b. Displaying Records   c. Deleting Records
   d. Updating Records   e. Exit

9. Visit to one of the IT Company and Survey which of the programming language they are using create an application, website or software. Write its details.

10. Create a data flow diagram, ER diagram and Use case diagram for a project- Book store management system.

11. Make a Presentation about "SDLC" and different "SDLC Models" and discuss.

12. Make a case study on how e-governance is helping people in the community. Try to visit some government bodies and make a report in how the use of technology is helping to develop a nation.

FINAL PROJECT REPORT

Unit-1: Database Management System (DBMS)
1. Define data, information, Database and DBMS. List out the advantages and disadvantages of DBMS.
2. Explain the different models of DBMS.
3. Differentiate between centralized and distributed database system.
4. What is normalization? Explain normalization process with examples.
5. Write Short notes on the following.
   a) Data Dictionary b) Keys is DBMS (Primary, Alternate, Candidate etc.)
   c) SQL   d) Data Security

Unit-2: Data communication and Networking
1. What is Computer Network? Explain advantages and disadvantages of computer network.
2. What do you mean by network topology? Explain the different types of network topologies.
3. Differentiate between LAN and WAN.
4. Define network architecture. Differentiate between client server and peer to peer networks.
5. What do you mean by transmission media? Explain the different types of transmission media used in computer network?
6. What do you mean by OSI reference model? Explain the different layers of OSI reference model.

Unit-3: Web Technology II
1. What is JavaScript? Write its features.
2. Differentiate between client-side scripting and Server-side scripting.
3. Explain event handling in JavaScript with examples.
4. What is JavaScript function? Explain with calling function examples.
5. What is jQuery? Write its features.
6. What is PHP? Write the advantages of PHP.
7. Explain the different operators used in PHP.

Unit-4: Programming in C
1. What is functions? Explain different types of functions.
2. Define pointer with examples.
3. Differentiate between Call by value and Call by reference with examples.
4. Differentiate between array and structure.
5. Differentiate between structure and Union with examples.
6. What is file handling concept in C? Explain any five file handling functions.
7. Differentiate between array and pointer.

Unit-5: Object Oriented Programming
1) What is OOP? Write its advantages and disadvantages of using OOP?
2) Explain the features of OOP. List out the applications of OOP.
3) Difference between OOP and Structured Programming Language.

Unit-6: Software Process Model (SPM)
1. What is SPM? Explain the phases of the Software Development Process in brief.
2. Why SDLC is important in System Development?
3. What are the popular SDLC models? Explain with merits and demerits.
4. What do you mean by feasibility study? Explain different feasibility study.
5. What are the different tools used in System Design? Describe each of them with suitable example.
6. Explain about different testing techniques during the system development.
7. Differentiate between System analyst and software engineer.

Unit-7: Recent Trends in Technology

1) What do you mean by AI? How does it affect modern society?
2) Explain the concept of Big Data and Its types.
3) What is E-commerce? Write down its advantages.
4) What is mobile computing? Write its features.
5) Define the following terms:
   a) M-commerce   b) Robotics   c) E- Learning   d) Virtual Reality
   e) Social Media   f) IOT   g) E-governance h) Cloud Computing.

JavaScript and PHP Programs

1. Write a program to JavaScript that illustrate event handling.
2. Write a JavaScript to display 1 to 10 using for loop, while loop, and do-while loop.
3. Write a JavaScript program to calculate the factorial of a given number.
4. Write a JavaScript program to input three numbers and find the largest one.
5. Write a program to input any three numbers and find the average in JavaScript.
6. Write a program to find area and circumferences of circle in JavaScript.
7. Write a program to display all even number from 1 to 100 in JavaScript.
8. Write a program to sum of two number using function.
9. Write a program to input any number and find its reverse order in JavaScript.
10. Write a program to display the Fibonacci series. 1 1 2 3 5 8 13 ……n in JavaScript.
11. Design a form with username, address, e-mail, password, and submit button. Validated the form using JavaScript.
12. Design a form with a username and password and submit button. Write a PHP code to get value of username and password using
    a) $_POST variable and   b) $_GET variable.
13. Write a PHP program to check if a string is a palindrome or not.
14. Write a PHP code to enter any two number and display their sum, difference and product.
15. Write a PHP code to find out area and perimeter of rectangle.
16. Create a registration form including Name, Address, Phone No., email address, Qualification, Gender and Country and get the values entered by user using post method and display.
17. Write a program in PHP to display all the even numbers from 1 to 100.
18. Write a program in PHP to input a number and check it is odd and even.
19. Write a program in PHP to display the multiplication table of a number.
20. Write a program in PHP to input a number and find its Armstrong or not.
21. Write a program in PHP to find the factors of an input a number.

C Programs

1. Write a program to input any three numbers and find out which one is the largest number using user defined function.
2. Write a program to display the day using the switch statement depending upon the number entered. i.e. input 1 for Sunday, 7 for Saturday using user defined function.
3. Write a program to input a number and check whether it is prime or not using function.
4. Write a program to display the sum of even and odd numbers from 1 to 50.
5. Write a program to accept the age of 10 different employees and count the number of employees.
   a. Whose age is more than or equal to 60   b. Whose age is less than 35
6. Write a program to enter elements for 3x3 matrixes and Display its sum.
7. Write a program to accept 10 different numbers in an array and sort them in descending order.
8. Write a program to input a number and find out whether that number is palindrome or not using function
9. Write a program to input the names of N numbers of students and sort them in alphabetical order.
10. Write a program to read a number and make the sum of individual digits and print using the recursion technique.
11. Write a program that reads different names and address into the computer and rearrange the names into alphabetical order using the structure variables.
12. Write a program to read N students' records store them in the data file and display the content inappropriate format by using the fprintf and fscanf function.
13. Write a program to calculate the factorial of given number using recursive function.
14. Write a program to input radius of circle and find area and circumference of circle.
15. Write a program to input any two number and find HCF and LCM using function.
16. Write a program to store employee id, name and salary of 100 employee. The program should them display the record of employee in appropriate format whose salary is greater than 50,000 using structure.
17. Write a program to display the greatest number among three numbers using pointer.
18. Write a program to store Roll number, Name and class of 50 students in a file "student.txt".
19. Write a program to input any 10 number in array and find the largest number using among them.
20. Write a program to keep the record of students and calculate total and percentage and display all records.
21. Write a program to read the marks of any 5 students in a subject and count how many students are pass or fail.