KENDRIYA VIDYALAYA No. 2 FCI Gorakhpur
Class XII (CS) (Session 2024-25)
Subject Name with code: Computer Science(083)

Details of Practical Examination

Maximum Marks: 30

Sno	Area	Marks
1	LabTest: 1. Python program (60% logic + 20% documentation + 20% code quality) 2. SQL Queries(Based on one or two tables)	 8 4
2	Report file: • Minimum 15 Python programs. • SQL Queries – Minimum 5 sets using one table/two tables. • Minimum 4 programs based on Python –SQL connectivity	7
3	Project(using concepts learnt in Classes11 and 12)	8
4	Viva voce	3
	TOTAL	**30M**

Order of the points required in practical file:

1. AIM :means the problem which you are going to solve
2. CODING :actual code in Python(Hand written code)
3. OUTPUT :output of the program on sample data (Hand written or screenshot)

Practical Program List (Use functions in your code)

1. WAP to show functionality of a basic calculator using functions.
2. Write a function in python which accept a number from user to returnTrue,if the number is a prime number else return False. Use this function to print all prime numbers from 1 to 100.
3. Write a function in python which accept a list of marks of students and return the minimum mark,maximum mark and the average marks.Use the same function to test.
4. WAP to read a textfile “myfile.txt” line by line and display each word separated by a #.
5. WAP to read a textfile“myfile.txt” and display the number of vowels/consonants/ uppercase/ lowercase characters in the file.
6. Remove all the lines that contain the character ‘a’ in a file and write it to another file.
7. Write a program to create a text file and print the lines starting with ‘T’ or ‘P’. (Both uppercase and lowercase).
8. Read a text file to print the frequency of the word ‘He’ and ‘She’ found in the file.
9. Create a binary file with name and roll number.Search for a given roll number and display the name, if not found display appropriate message.
10. Create a binary file with roll number,name and marks. Input a roll number and update the marks.

11. Read a CSV file from hard disc and print all the details on the screen.
12. Read a CSV file (containing itemno,name,rate,QOH) from harddisc and print all the items whose rate is between Rs 500 and Rs 1000.
13. Create a CSV file by entering user-id and password,read and search the password for given userid.
14. Write a random number generator that generates random numbers between 1 and 6 (**simulates** a dice). Throw the two dices for 10 times and print their total.
15. WAP in Python to demonstrate linear search.
16. Write a Python program to implement a stack using a list data-structure.
17. WAP to pass an integer list a stack to a function and push only those elements in the stack which are divisible by 7.

DatabaseManagement

1. Queries using Create database, Show databases, Use, Createtable, ShowTables, Describe, Rename, Alter, Select, From, Where, Insert, Update commands
2. Queries using DISTINCT, BETWEEN, IN, LIKE, ISNULL, ORDER BY,GROUP BY, HAVING
3. Queries for Aggregate functions- SUM(), AVG(), MIN(), MAX(), COUNT()
4. WAP to connect Python with MySQL using database connectivity and perform the following operation on data in database: Create a table in database
5. WAP to connect Python with MySQL using database connectivity and perform the following operation on data in database: Insert record in the table
6. WAP to connect Python with MySQL using database connectivity and perform the following operationon data in database: Fetch records from the table using fetchone(), fetchall() and fetchmany( ).
7. WAP to connect Python with MySQL using database connectivity and perform the following operation on data in database: Update record in the table
8. WAP to connect Python with MySQL using database connectivity and perform the following operation on data in database: Delete record from the table