PM SHRI KENDRIYA VIDYALAYA KHAMMAM

AUTUMN BREAK HOLIDAYS HOMEWORK (2025-26)
CLASS XII

COMPUTER SCIENCE

S.No	Program
	Working with functions
1	Write a python program using a function to print factorial number series from n to m numbers.
2	Write a python program to accept the username "Admin" as the default argument and password 123 entered by the user to allow login into the system.
3	Write a python program to demonstrate the concept of variable length argument to calculate the sum and product of the first 10 numbers.
	Data File handling
4	Create a text file "intro.txt" in python and ask the user to write a single line of text by user input.
5	Write a program to count a total number of lines and count the total number of lines starting with 'A', 'B', and 'C' from the file dfh.txt.
6	Write a program to replace all spaces from text with - (dash) from the file intro.txt.
7	Write a program to know the cursor position and print the text according to the below-given specifications: • Print the initial position • Move the cursor to 4th position • Display next 5 characters • Move the cursor to the next 10 characters • Print the current cursor position • Print next 10 characters from the current cursor position
8	Write a program to store customer data into a binary file cust.dat using a dictionary and print them on screen after reading them. The customer data contains ID as key, and name, city as values.
9	Write a program to update a record from student.dat file by its rollno. Display the updated record on screen.
10	Write a program to write data into binary file marks.dat and display the records of students who scored more than 95 marks.
11	Read a CSV file top5.csv and print the contents in a proper format. The data for top5.csv file are as following:

SNo	Batsman	Team	Runs	Highest
1	K L Rahul	KXI	670	132*
2	S Dhawan	DC	618	106*
3	David Warner	SRH	548	85*
4	Shreyas Iyer	DC	519	88*
5	Ishan Kishan	MI	516	99

12	Read a CSV file top5.csv and print them with tab delimiter. Ignore first row header to print in tabular form.	
13	Read a CSV file students.csv and print them with tab delimiter. Ignore first row header to print in tabular form.	
	Field 1	*Data Type*
	StudentID	Integer
	StudentName	String
	Score	Integer
	Data Structure - Stack	
14	Write a program to implement a stack for the employee details (empno, name).	
15	Write a python program to check whether a string is a palindrome or not using stack.	

MATHS

Worksheet on

1. Integrations,

2. Definite integrals

PHYSICS

1. Define magnetic dipole moment.
2. Write the expression for the torque acting on a bar magnet placed in a uniform magnetic field.
3. State and explain Gauss's law in magnetism.
4. Derive an expression for the magnetic field on the axial line of a bar magnet (using analogy with an electric dipole).
5. A magnetic needle is kept in a uniform magnetic field. If it is rotated from $0°$ to $90°$, explain how the potential energy changes.
6. Derive the expression for the potential energy of a magnetic dipole placed in a uniform magnetic field.