Course Code: PBI101 L T P C Course Name: Programmingin 'C' lab 0 0 4 2

Exp. No.	Topics to be covered
1	A farmer wants to fence with three rounds of wire in his rectangular plot of length 20 metres and breadth 15 metres. Calculate the total wire to be purchased. If the cost per metre of wire is 400 rupees, also calculate the total cost of fencing.
2	WAP to convert temperature from Fahrenheit to celsius.
3	WAP to exchange two numbers using a temporary variable and without.
4	WAP to input an decimal number (base 10) and display its hex and octal equivalents.
5	WAP to check whether a given number is even or odd. a) Using if-else b) Using switch-case c) Using conditional/ternary operator
6	Area of a valid triangle using Heron's Formula. (Sum of any two sides must be greater than the third side).
7	WAP that will display the grade of a student provided his/her percentage in 6 subjects according to following criteria: a) Percentage > 80 then Grade = A b) Percentage between 61 & 80 then Grade = B c) Percentage between 51 & 60 then Grade = C d) Percentage between 41 & 50 then Grade = D e) Percentage between 35 & 40 then Grade = E f) Percentage < 35 then Grade = F
8	WAP to find minimum of three numbers: a) Using if else b) Using conditional/ternary operator c) Using arithmetic operation (subtraction)
9	WAP to find the average of top three test results out of four conducted. (eliminate the smallest one).
10	WAP to determine leap year or not using Logical AND, OR operators and conditional statements.
11	WAP to compute net salary ?(NS=BP+HRA+TA +DA)Where BP (Basic pay would be enter by user) HRA=10% of BP, TA=5%of BP DA=15%of BP

12	WAP to print the sum of digits of any number?
13	WAP to find the factorial of a number?
14	WAP to generate fibonacci series? (1,1,2,3,4,5,8,13,21)
15	Write a menu driven program to find area of A Circle B Rectangle C Triangle
16	Write a menu driven program using functions to find? A) Factorial of a number B) Reverse of a number, and C) factor of a number.
17	WAP to generate following pattern
	ABCDEFGFEDCBA
	ABCDE F FEDCBA
	ABCDE EDCBA
	ABCD DCBA
	ABC CBA
	AB BA
	A A
18	Write a menu driven program to perform the following operation on input strings Using function. Do not use library functions for the same. a)Find the length of the string b)Reverse the string c)Concatenate two strings, and d)Compare two strings.
19	WAP to form a function for reverse the words of a sentence. Eg If the sentence is: TODAY IS MONDAY then it must be converted to MONDAY IS TODAY?
20	WAP to convert a name to a given format as if ANIL KUMAR GUPTA to A.K.Gupta
21	WAP using function to perform matrix multiplication?
22	WAP to sort a matrix of size r X c row wise and column wise and display all three matrices.
23	Write a recursive function Ackerman(m,n) that is defined as follows :Ackerman(m,n) = $n+1$ for $n>0$, Ackerman (m,0) = Ackerman(m-1,1) for, m>0, Ackerman(m,n)=Ackerman(m-1,Ackerman(m,n-1)) for (m,n)>0
24	WAP to create a two dimensional array of size r X c dynamically, store elements in it and find the sum of all the elements?
25	WAP to sort N names in alphabetical order. Your program must use array of pointers to store the names?
26	WAP using structures to store the records of N student of a class. The record contain: their names, roll nos, addresses and marks in five subjects. Find the highest marks obtained in each subject. Also find the name and roll no of the class topper?

27	Read a text file abc.txt and count the number of sentences, number of words and number of characters in it. A sentence can be terminated by (.), (!), or (?)
28	WAP to read a text file info.txt and encode it using the following rules into a new file secret.txt a)Each alphabet is replaced by its next alphabet in sequence b)Each space to be replaced by \$ sign c)All numeric digits and special chars must remain unchanged
29	WAP to create a data file stud.dat that stores the marks obtained in four different subjects by each student in a batch of 30 students. Then read this file, calculate the percentage of marks and store it in a new file results.dat along with the student's name.
30	WAP to perform the following operations a) Search for a given emp. no. b) Append a new record at the end c) Delete a given record. You need to read a data file Employee.dat with the following record structure (emp. no, name, sal).