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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

First, Semester, CS - Examination;

C and Basic of Python Programming

Time: 3 hrs

Max. Marks: 100

Note: Answer **FIVE** full questions, selecting **ONE** full question from each unit.

UNIT - I		
1 a.	Explain the basic structure of C program along with an example to compute the area of a circle.	10
b.	Define a flow chart and illustrate the various symbols used to draw a flowchart. Draw a flowchart to find the area of the triangle given 3 sides.	10
2 a.	Explain the following operators in C i) Arithmetic operators ii) relational operators iii) Logical operators, along with suitable examples.	10
b.	Write an algorithm to reverse a 4- digit integer number.	10
UNIT - II		
3 a.	Write a program to simulate a simple calculator using switch statement for float type data.	10
b.	Write the general syntax and flowchart for i) If else statement ii) else ...if ladder.	10
4 a.	Write a 'C' program to identify and display appropriate message on the screen, so as the characters entered is an alphabet, digit or special character.	10
b.	With the help examples explain, getchar(), putchar(), scanf() and printf() statement used in c	10
UNIT - III		
5 a.	Write a C program to find the sum of 4digit integer using do while statement, also write any 3 difference between while and do while statement.	10
b.	Write a C program to Sort n elements using selection sort.	6
c.	write a C program using for loop to print 1 2 3 4 5 6	
6 a.	Write a C program to find the sum of the matrices, and display the same.	10
b.	Illustrate the different ways of initializing two dimensional array, with suitable examples to show the content of memory.	6
c.	Write a C program to generate n prime numbers.	4

UNIT - IV		
7 a.	Explain the following string handling functions with suitable examples i) Strcpy ii) Strcmp iii) Strlen iv) Strcat	10
b.	Write a program using function to search for a given element in an array using binary search.	10
8 a.	Write any five differences between structure and union.	5
b.	Explain the difference Elements of uses defined functions, with suitable example.	10
c.	Write a C program to check, a given string is palindrome or not, without using function.	5
UNIT - V		
9 a.	List the different data types supported by Python, wwith example also explain the different types of operations that can be perform on type int.	10
b.	Write a Python program to print the roots of an Quadratic equation.	10
10 a.	Write a program to clasify a given integer as being a positive integer, negtive as being positive integer, negtive integer or zero python.	7
b.	Write a program using while loop to check whether a given number is prme or not in Python.	8
c.	Define the following i) loop ii) finite loop iii) Infinite loop iv) definite loop v) indefinite loop.	5

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