U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

October 2024 Supplementary Examinations

Programme: B.E. **Semester: I / II**
Branch: Common to All Branches **Duration: 3 hrs.**
Course Code: 22CS1ESICP / 22CS2ESICP **Max Marks: 100**
Course: Introduction to C-Programming

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

1	a)	Create an algorithm and a flow chart to the convert the input Celsius degree into its equivalent Fahrenheit degree. Using the formula: F = (9/5) *C+32.	**05**
	b)	Write the basic structure of C Program and explain its different sections	**05**
	c)	Discuss the different type of operators available in C, illustrate the same with few lines lines of code	**10**

UNIT - II

2	a)	What is branching? List and explain all the branching statements with syntax	**10**
	b)	Differentiate between while( ) loop and do while ( ) loop	**06**
	c)	Find out the error, if any in the below program and give the explanation for showing the error	**04**

```
#include<stdio.h>
int main()
{
   int P = 10;
   switch(P)
   {
     case 10:
     printf("Case 1");

     case 20:
     printf("Case 2");
     break;

     case P:
     printf("Case 2");
     break;
   }
   return 0;
}
```

UNIT - III

3	a)	What is an array? How a single dimension and two dimension arrays are declared and initialized?	**10**
	b)	Write an algorithm and develop a C program that reads N integer numbers and arrange them in ascending order using selection Sort.	**10**

UNIT - IV

4	a)	Define string. List out string manipulation function in C	**04**
	b)	Develop a program to concatenate two strings using any standard function or recursive function and determine the length of the concatenated string	**06**
	c)	Explain string manipulation library functions with their syntaxes. Write a program to check whether a string is palindrome or not.	**10**

OR

5	a)	What is function? Explain different classification of user defined functions based on parameter passing and return type with examples	**10**
	b)	Write a program in C using functions to swap two numbers using global variables concept and call by reference concept.	**10**

UNIT - V

6	a)	Define a structure. Explain the syntax of structure declaration and its types in C with example	**10**
	b)	What is a pointer? Show how pointer variables are declared and initialized. List advantages and disadvantages of pointers.	**10**

OR

7	a)	Define Pointers. Explain pass by value and pass by reference with C statements and an example	**10**
	b)	Develop a program to read and display the information about an employee using the structures	**10**

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