DATE: 11/07/2022 **University of Mumbai** QP CODE:95303

Curriculum Scheme: Rev2019

All Programs

Examination: FE Semester II FH2022

Course Code: FEC205   Course Name: C Programming

Time: 2 hours **Max. Marks: 60**

===

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks. (2 Marks each)
1.	What inbuilt function should be used to return a value rounded up to the next higher integer?
Option A:	floor( )
Option B:	round( )
Option C:	puts( )
Option D:	ceil( )
2.	Collection of variables of same or different data types is called as
Option A:	Array
Option B:	Structure
Option C:	Function
Option D:	String
3.	What is value of **a** in following expression? int a = 10 + 4.867;
Option A:	a=10
Option B:	a=14.867
Option C:	a=14
Option D:	a=4

4.	`#include <stdio.h>`
	`  void main()`
	`  {`
	`      int x = 5;`
	`      if (x == 5)`
	`          printf("hi\n");`
	`      else`
	`          printf("how are u\n");`
	`      printf("hello\n");`
	`  }`

Option A:	hi
Option B:	hi hello
Option C:	how are you hello
Option D:	how are you
5.	The value obtained in the function is given back to the main program by using which keyword?
Option A:	new
Option B:	return
Option C:	volatile
Option D:	static

1 | P a g e

6.	In an array a[2] [2] = {10,20,30,40,50,60}, then a[0] [1] is which element?
Option A:	10
Option B:	20
Option C:	30
Option D:	40

Q2	Solve any Four out of Six (4 marks each)
A	Explain conditional operator used in C language with proper example.
B	Differentiate between entry and exit controlled loop with an example.
C	Write a program to accept a number and to check whether it is Armstrong number or not. (If sum of cube of digits equal to that number then number is Armstrong number. example $1^3+5^3+3^3 = 153$)
D	Define recursion. Write a program using recursive function 'power' to compute x raised to n i.e. x^n which can be defined as given below: power (x, n)=1 if n=0 power(x, n)=x if n=1 power(x, n)=x*power(x,n-1) otherwise
E	Explain following functions with proper example. a) strcmp( ) b) strcat( ) c) gets( ) d) strrev( )
F	Write a program to accept elements of one dimensional array from user and sort and display them in ascending order.

Q3	Solve any Four out of Six (4 marks each)
A	Explain bitwise operators available in C?
B	Write a program to print the following pattern. Accept number of rows from user and display that much number of rows in output. 1 01 101 0101
C	Write a program to find factorial of a given number using function.
D	Explain compile time and run time initialization of an array with proper example.
E	Write a program to accept elements of two dimensional square matrix and check whether matrix is symmetric or not.
F	Write a program to read Title, Author and Price of 5 books using array of structures. Display the records in ascending order of Price.

Q4	Solve any Four out of Six (4 marks each)
A	Explain data type modifiers available in C language.
B	Write a program to accept three numbers and to find largest of three numbers using nested if-else.
C	Write a program to check whether the entered string is palindrome or not using user defined function.
D	Explain the following with proper example: a) break b) continue c) goto
E	Explain the advantages of using Function.
F	Distinguish between Structure and Union with proper example.