647510 **BCAclaCC1010** **Seat No :_____**

B.C.A Semester - 1 (*CBCS*) Examination
Feb/Mar. -2021 (NEW COURSE)
PROGRAMMING IN C (CORE)

Time: 1:30 Hours **Marks: 42**

Instructions:

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

Q.1(A) Answer the following questions. (all three) (03)

1. Who and when invented C language?
2. What is the range of signed char data type in C language?
3. We can write more than one "main()" function in any program in C language. Is it true or false?

Q.1(B) Answer the following question. (any two) (06)

1. List out all C tokens. Describe all tokens. Also give the example of it.
2. Explain Control String.
3. Draw a flowchart to print 1 to 10.
4. What is operator? List out all operators available in C language. Explain any two of them.

Q.1(C) Answer the following question. (any one) (05)

1. What is Type Casting? How can it used in programming.
2. Write a short note on pre-processor in C language.

Q.2(A) Answer the following questions. (all three) (03)

1. What is looping structure in C language? Define it.
2. _____ statement is used to terminate the loop.
3. What is the output?

```
#include<conio.h>
#include<stdio.h>
Void main()
{
        int i;

        for(i=1;i<=27;i++)
        {
                i=i+5;
        }
        printf("%d",i);
}
```

Q.2(B) Answer the following question. (any two) (06)

1. Explain do….while() loop with example. Also give their advantages.
2. Explain while() loop with example. Also give their advantages.
3. Explain break and continue statements with example.
4. Explain "goto" with example.

Q.2(C) Answer the following question. (any one) (05)

1. What is "if" statements. List out their types. Explain nested if with example.
2. Write a program to print following output.

```
1  0  0  0  0
0  1  0  0  0
0  0  1  0  0
0  0  0  1  0
0  0  0  0  1
```

Q.3(A) Answer the following questions. (all three) (03)

1. What is heard file?
2. Give difference between gmtime() and localtime()
3. _____header file must be included if we want to used line() or circle() function in program.

Q.3(B) Answer the following question. (any two) (06)

1. Explain call by value and call by reference with example.
2. Explain: malloc (), calloc (), relloc () functions.
3. Describe Recursion. Explain it with a program.
4. Explain: isapha (), isupper (), isprint () functions.

Q.3(C) Answer the following question. (any one) (05)

1. What is U.D.F.? List out all types of U.D.F. available in C language and explain any two with example.
2. Write a short note on: Storage Classes available in C language.

Q.4(A) Answer the following question. (all three) (03)

1. Array index value is always starts from 1. Is it true or false?
2. Define: union
3. Give the main difference between Array and structure.

Q.4(B) Answer the following question. (any two) (06)

1. What is structure? Why we used it? Explain its advantages and limitation.
2. Write a short note on : String Array. Also give proper example.
3. What is array within Structure? Explain it.
4. Write a program to enter any values from keyboard and print its factoral value. (example : input is 5, then output is 5*4*3*2*1=120)

Q.4(C) Answer the following question. (any one) (05)

1. What is an Array? Explain all types with details.
2. Write a program to enter any 10 values from keyboard. Now, print the values which are less than the average value. Also count & print that how many values are greater than or equal to average value.

Q.5(A) Answer the following questions. (all three) (03)

1. What is Pointer?
2. What is the use of double pointer?
3. Give full form : CLA.

Q.5(B) Answer the following question. (any two) (06)

1. Explain pointer within array with example.
2. Explain pointer to structure with example.
3. Describe : Use of pointers in Dynamic Programming.
4. Describe : Command Line Arguments, Give their advantages.

Q.5 (C) Answer the following question. (any one) (05)

1. Describe important of File Handling in C language. Also explain I/O operation in File Handling.
2. Write a program to enter any value and print that given number is Armstrong or not. (Armstrong number means, the sum of cubes of each digits is equal to the number itself.)

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