

RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE, RAHARA  
KOLKATA

MID SEM EXAMINATION 2021  
B.Sc. 1<sup>st</sup> SEM COMPUTER SCIENCE (Hons.)  
Programming Fundamentals using C/C++ (CC1)

Total Marks: 25

Duration: 1 hour

N. B.:

- Draw diagrams whenever necessary.
- Numbers to right indicate marks.

Answer any five (5) questions from the following:

5x5=25

1. What is identifier? Explain with example. Specify the size of different types of data types in C. Write 4 keywords of C language. 2+2+1=5
2. What is the difference between algorithm & flowchart? Write an algorithm and flow chart to solve the following problem- You will be given 3 integers as input. The inputs may or may not be different from each other. You have to output 1 if all three inputs are different from each other and 0 if any input is repeated more than once. 2+3=5
3. What will be the value of P for these following statements: P=if(-1), P=if(0), P=if(1), P=if(18)? Is it possible to use nested switch case in C language? How many types of conditional statements are there in C, specify them. 2+1+2=5
4. Write a C program using nested if to calculate the minimum among five numbers. Explain the working principles of switch case. 3+2=5
5. What do you mean by infinite loop? Write a small piece of code to show one infinite loop. State the difference between for loop and do-while loop. 1+2+2=5
6. Write a C program to print the following pattern :

```
*****  
****  
***  
**  
*
```

5

7. Write a program using switch case to display a menu that offers five options: read three numbers, calculate total, calculate average, display the smallest and display the largest value 5

8. What will be the output of the program?

```
#include<stdio.h>  
int main()  
{
```

```

int i,j;
for(i=1;i<=2;i++)
{
    for(j=1;j<=2;j++)
    {
        if (i==j)
            continue;
        printf("%d\t%d",i,j);
    }
}
return 0;
}

```

State the difference between logical and bitwise operator

3+2=5