Silicon
beyond teaching

Silicon Institute of Technology

Silicon Hills, Bhubaneswar
| An Autonomous Institute |

1st Semester B.Tech Mid Term Examination 2019-2020
COMPUTER PROGRAMMING(18ES1T03)

Duration: 01:30 Full Marks: 25

1 ***Answer All***

a What will be the output of the following code segment? 1

```
#include <stdio.h>
main()
{
    int a = 10, b = 20, value;
    value = (a < b) ? a++ : ++b;
    printf("a = %d, b = %d, value=%d", a, b, value);
}
```

b What do you mean by keywords? How many keywords are there in C? 1

c What is the output of this C code? 1

```
#include <stdio.h>
int main()
{
    int a = 5, b= 6;
    printf("R= %d", a&&b);
    printf("S= %d", a||b);
}
```

2 ***Answer All***

a What is the output of this C code? 1

```
#include <stdio.h>
void main()
{
    int k;
    for (k=0 ; k < 10; k+2)
        printf("%d  ",k);
}
```

b Differentiate while loop and do.. while loop. 1

3 ***Answer any Two***

a Write a C program that accepts a distance in inches and prints the corresponding value in centimeter. Note that 1 inch = 2.54 cm. 2

b Draw a flowchart to compute the greatest among the three given numbers. 2

c What is explicit and implicit type conversion. Explain with suitable example. 2

4 ***Answer any Two***

a There are coins of Rs. 10, 5, 2, and 1 in the bag. Write a program for the teller to calculate the total amount of money. The teller will enter the number of coins from each denomination. 2

b Write a program to find factorial of a number. 2

[P. T. O.]

c Find out the output of the following code segment. 2

```
main()
{
    int i = 1;
    while ( i <= 10 )
    {
        if(i % 5 == 0)
           break;
        printf(" %d\t", i);
        i++;
    }
}
```

5 ***Answer any Two***

a Write a program to generate the Fibonacci series up to n^{th} term, where n is provided by the user. 6

b Enter 3 sides of a triangle, WAP to check whether the triangle is valid or not (triangle is valid if the sum of two side is greater than the largest of three sides) and then classify the given triangle is isosceles, equilateral or right-angled or scalars. 6

c Write a program to calculate the electric bill by inputting the previous and present meter reading. The cost for the 1st 100 units is Rs. 1.40 per unit, for the next 100 units Rs. 2.50 per unit and for rest units Rs. 3.20 per unit. 6