

Total No. of printed pages = 4

CS 171105

Roll No. of candidate

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10/11/20  
BINA CHOWDHURY CENTRAL LIBRARY  
(GIMT & GIPS)  
Azara, Hatkhowapara,  
Guwahati - 781017

2019

B.Tech. 1<sup>st</sup> Semester End-Term Examination

INTRODUCTION TO COMPUTING

(New Regulation) & New Syllabus (w.e.f 2017-18)

Full Marks – 70

Time – Three hours

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The figures in the margin indicate full marks  
for the questions.

Answer question No. 1 and any *four* from the rest.

1. (a) State True or False : (5 × 1 = 5)
- (i) Keywords are case sensitive.
  - (ii) Shifting once to the left multiplies the number by 2.
  - (iii) The modulus operator can only be used with integers.
  - (iv) There can be only one default case in the switch-case statement.
  - (v) A function can return only one value.

[Turn over

(b) Give the output of the following programs.

(5 × 1 = 5)

(i) `#include<stdio.h>`

```
main( )
```

```
{
```

```
int a = 4, b = 5;
```

```
printf("\n %d", (a>b)? a:b);
```

```
}
```

(ii) `#include<stdio.h>`

```
main( )
```

```
{
```

```
int a = 4, b = 5;
```

```
float c;
```

```
c=b/a;
```

```
printf("\n %f",c);
```

```
}
```

(iii) `#include<stdio.h>`

```
main( )
```

```
{
```

```
int a = 4, b = 5, c = 7;
```

```
c = a = b;
```

```
printf("\n %d",c);
```

```
}
```

```
(iv) #include<stdio.h>
      main()
      {
      int a = 4;
      if(a<10)
      printf("\n A");
      if(a<20)
      printf("\n B");
      if(a<30)
      printf("\n C");
      }
```

```
(v) #include<stdio.h>
     main()
     {
     int i = 4;
     do
     { printf("%d",i);
     } while(i>0);
     }
```

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2. (a) Draw a flow chart to check whether a given input is an even or odd number. (5)
- (b) Write an algorithm to compute the simple interest. (5)
- (c) Discuss the various constants in a C program. (5)

3. (a) Discuss the various bitwise operators with an example of each. (5)
- (b) Write the differences between type conversion and type casting. (5)
- (c) Write a program to find the greatest among three numbers. (5)
4. (a) Using switch case write a program to check whether a given input is a vowel or not. (8)
- (b) Write a program to find the factorial of a number. (7)
5. (a) Write a program to sort the elements of an array in ascending order. (10)
- (b) Implement the Binary Search Technique to search the element 5, 23, 6 in the following array.  
3, 5, 15, 23, 31, 39, 47, 50. (5)
6. With the help of a program discuss the two ways in which arguments or parameters can be passed to the called function. (15)
7. (a) Without using the standard library function write a program to find the length of a string. (10)
- (b) Write a program to print the following pattern
- ```
1
1 2
1 2 3
1 2 3 4
```
- (5)