Total number of printed pages–4

2017

INTRODUCTION TO COMPUTER PROGRAMMING

Paper : CS 101

Full Marks : 100

Time : Three hours

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

*Question No. **1** is **Compulsory**.*

*Answer **any five** questions out of **2** to **8**.*

1.   2×10=20

(a) Find the error in the following code :

```
#include <stdio.h>
main ( ) {
      printf(Hello World)
}
```

Contd.

(b) What is the difference between = and = = in C-language ?

(c) Write the utility of *break* statement in C-language.

(d) In the following statement, if the base address is 1000, then what is the address of the 4th element (i.e. the address of a[4]) ?

    int a[5]={1,2,3,4,5} ;

(e) In the following array, what is the length of the array and length of the string ?

    char arr[20]="CIT Kokrajhar" ;

(f) Write the output of the following C-statement :

    printf("%d", size of(4.3)) ;

(g) Which of the following operator takes only integer operand ?

    (i)   +

    (ii) *

    (iii) /

    (iv) %

(h) Write the difference between malloc() and calloc().

(i) Write the output of the following code :

    int i=5,a,b ;
    a=++i ;
    b=i++ ;
    printf("%d %d %d", a,b,i) ;

(j) How many times does the loop iterated ?

    for (i=0 ; i>10 ; i+=2)
        printf("++i\n") ;

2. (a) Write about unary, binary and ternary operators in C programming Language with example.   8

   (b) Write a C program to check whether a given number is prime or not.   8

3. (a) What is difference between while loop and do-while loop ?   6

   (b) Write a C-program to find the average of *n* numbers.   10

4. (a) Write a C-program to find out GCD of two numbers.   8

   (b) Write a C-program to convert a decimal number to binary number.   8

5. *(a)* Write a C-program to implement Bubble sort algorithm. 10

   (b) Write a C-program to find the summation of two matrices.

   6

6. *(a)* What is call by value and call by reference ? Write a function to swap two numbers by using call by reference. 2+6=8

   (b) What is Recursion ? Find the value of $n!$ using recursion. 2+6=8

7. Write a C program to read name and marks of n numbers of students from user and store them in a file. 16

8. Write short notes on : *(any four)*

   4×4=16

   (a) Structure and union

   (b) Break and continue

   (c) Dynamic Memory Allocation

   (d) Bitwise operator

   (e) Preprocessor in C.