SECOND SEMESTER B.Sc. DEGREE EXAMINATION, APRIL/MAY 2013

(CCSS)

Computer Science

CS 2C 02—PROGRAMMING IN C

Time : Three Hours

Maximum : 30 Weightage

Section A

*Answer **all** questions*

What will be the output of the following programe ?

```
main 0

    int n=125, sum=0 re;
    while(n>0)

    re=n%10;
    sum+=re;
    n/= 10;

    printf ("sum is=%d",sum);
```

2. What will be the output of the following C program segment for the values of x *and y* if **n** assumes a value of (a) 1 and (b) 0.

```
int x =1;
int y = 1;
if(n>0)
  x = x + 1;
  y = y − 1 ;
printf("%d%d", x,y);
```

3. What will be the output of the following program :

main()

```
   int x=10;
   int y = 20;
   int p,q;
   p = prod(x,y);
     q = prod(p,prod(x,2));
     printf("%d%d\n",p,q);
 }
prod(a,b)
int a,b;

   return(a*b);
```

4. Give the syntax of ternary operator in C.

5. Which loop control statement in C is called as entry control loop ?

6. Write down the function name which frees previously allocated memory space in C ?

7. What will be output of following program ?

```
 int main(){
   int i = 3;
   int *j;
   int **k;
   j=&i;
   k=&j;
   printf("%u %u %u",i,*j,**k);
 return 0;
```

8. What is the range of values that can be represented by a variable *of signed int* in a compiler in which size of *int is* two byte ?

9. Which statement is used in C for by passing a loop construct ?

10. Which is the terminator symbol in C ?

11.   Write down the function name which frees previously allocated memory space in C ?

12.   Write down the C code for declaring an array of size 10.

$(12 \times \frac{1}{4} = 3$ weightage)

Section B

*Answer **all** questions*

13.   Give any *four* relational operators in C ?

14.   Distinguish between *break* **and** *continue* statement in C.

15.   List any four string handling functions in C.

16.   How will you define a pointer variable in C ?

17.   Explain the use of *fseek()* function ?

18.   What is the scope of a local variable ?

19.   Differentiate *structure* and *union.*

20.   What is the use of *enum* data type in-C ?

21.   Explain syntax of *calloc()* function in C.

$(9 \times 1 = 9$ weightage)

Section C

*Answer any **five** questions.*

22.   Explain the fundamental data types in C.

23.   Explain *else if* ladder using suitable example.

24.   What is recursion? Explain with an example.

25.   Using suitable example explain actual and formal arguments in C.

26.   What is *structure* variable ? How a *structure* variable can be accessed using *pointer* ?

27.   Write a note on command line arguments.

28.   Discuss the different storage classes in C.

$(5 \times 2 = 10$ weightage)

Section D

*Answer any **two** questions.*

29.   Write a C program to sort N numbers in descending order.

30.   Write a C program to compute x^n where x is an integer number accepted as input.

31.   Write a C program to read two matrices of suitable order and find its product.

$(2 \times 4 = 8$ weightage)