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*

1. 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);
   ```

Turn over

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 x ¼ =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 x 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 x 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^x 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 x 4 = 8 weightage)