

C 82162

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Name.....

Reg. No.....

**SECOND SEMESTER B.Sc. DEGREE (SUPPLEMENTARY/IMPROVEMENT)
EXAMINATION, APRIL/MAY 2015**

(UG—CCSS)

Complementary Course—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 C code ?

main 0

```
int a = 10 ;  
int b = 15 ;  
int x ;  
x = (a > b) ? a : b ;  
printf ("%d", x) ;
```

2. What will be the output of the below C program ?

main 0

```
int i = 10 ;  
printf ("value = %d", i ++);  
printf ("value = %d", i);
```

3. Write down the correct output of the following code

```
int z, x = 5, y = -10, a = 4, b = 2 ;  
z = x ++ --y * b/a ;
```

Turn over

4. What will be output when you will execute following *c* code ?

```
main()
```

```

    const int *p ;
    int a = 10 ;
    p = &a ;
    printf("%d", *p) ;
    return 0 ;
}

```

5. What is the range of *char* data type in a compiler in which size of *char* is one byte ?
6. What is the use of *%* operator in C ?
7. Which C statement is used to skip a part of the statements in a loop ?
8. Which loop control statement is called as exit control loop ?
9. What will be output of following *c* code ?

```
main()
```

```
struct India
```

```
char c ;
```

```
float d ;
```

```
;
```

```
struct world
```

```
int a[3] ;
```

```
char b ;
```

```
struct india orissa ;
```

```
struct world st = ((1, 2, 3), 'I', 'q', 1.4) ;
```

```
printf ("%d\\t%c\\t%c\\t%f", st.a[1], st.b, st.orissa.c, st.orissa.d);
```

10. Write down the C statement for declaring a matrix of size 5 x 5.

11. Which C function is used to allocate a block of memory of requested size and returns a pointer to the first byte of the block ?
12. Which C built-in function is used for moving the file pointer position to the beginning of the file ?
(12 x $\frac{1}{4}$ = 3 weightage)

Section B

Answer all questions.

13. Name the fundamental data types in C ?
14. What is the difference between *main()* and *void main (void)*.
15. Give any four logical operators in C.
16. Distinguish between *while* and *do while* loop constructs in C.
17. What is the advantage of using union over structure data type in C ?
18. What do you mean by recursion ?
19. Differentiate static and register variables.
20. Explain the use of *fprintf()* function ?
21. What is user defined function ?

(9 x 1 = 9 weightage)

Section C

Answer any five questions.

22. Explain the different forms of *if* statements in C.
23. Explain the structure of a C program.
24. Write a note on any *two* dynamic memory allocation functions in C.
25. What are the command line arguments ? Give examples.
26. Explain the function and syntax of any *two* string functions available in C.
27. Explain the different categories of user defined functions.
28. Explain the different storage classes in C.

(5 x 2 = 10 weightage)

Section D

Answer any two questions.

29. Write a C program to read a list of n integers into one dimensional array and find the average of all the elements in the array using pointers to access array elements.
30. Write a C program to read N integer numbers stored in a file DATA and then write all odd numbers to a file ODD and all even numbers to a file EVEN respectively.
31. Write a C program to check whether the given number is prime or not.

(2 x 4 = 8 weightage)