003-007101
M.C.A. (Sem.-I) Examination
January-2014
CCA1001 : Introduction to Programming using C

Faculty Code : 003
Subject Code : 007101

Time : 3 Hours]   [Total Marks : 70

1. Answer the following Multiple Choice Questions :   **15**

    (1) What will be output of following C code ?
    ```c
    #include<stdio.h>
    int main(){
        int i=2,j=2;
            while(i+1?--i:j++)
        printf("%d",i);
        return 0;
    }
    ```
    (a) 0   (b) 1
    (c) 2   (d) 3

    (2) What will be output of following C code ?
    ```c
    #include<stdio.h>
    int main(){
        int i,j;
        i=j=2,3;
        while(--i&&j++)
            printf("%d %d",i,j);
        return 0;
    }
    ```
    (a) 11   (b) 12
    (c) 13   (d) 14

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(3) What will be output of following C code ?

```c
#include<stdio.h>
int main(){
    for(;;) {
        printf("%d ",10);
    }
    return 0;
}
```

(a) 10   (b) 11

(c) 12   (d) infinite loop

(4) Which of the following operator takes only integer operands ?
Select one :

(a) +   (b) %

(c) /   (d) *

(5)
```c
#include<stdio.h>
int main(){
    int i;
    for(i=0;i<=5;i++)
    printf("%d",i);
    return 0;
}
```

(a) 0 1 2 3 4   (b) 0 1 2 3 4 5

(c) 0 1 2 3 4 5 6   (d) 6

(6) Write a C program to print Hello world without using any semicolon

(a)
```c
void main(){
    if(printf("Hello world")){
    }
}
```

(b)
```c
void main(){
    while(!printf("Hello world")){
    }
}
```

(c)
```c
void main(){
    switch(printf("Hello world")){
    }
}
```

(d) All of the above

(7) What will be output of following C program ?

```
int main(){
int *ptr;
printf("%d",*ptr);
return 0;
}
```

(a) Address of variable ptr

(b) Garbage value

(c) Null

(d) None of the above

(8) What are merits and demerits of array in C ?

(a) We can easily access each element of array.

(b) Not necessity to declare too many variables.

(c) Array elements are stored in continuous memory location.

(d) All of the above

(9) Which of the following is same as "NULL" ?

(a) '0'   (b) '1'

(c) '\0'   (d) '0\'

(10) Which of the following comments about the usage of structure is true ?

Select one :

(a) Storage class can be assigned to individual numbers.

(b) The scope of a member name is confined to the particular structure, within which it is defined.

(c) Individual members can be initialized within a structure type declaration.

(d) None of above

(11) Which of the following is used to terminate from the loop ?

(a) switch   (b) break

(c) go to   (d) None of these

(12) int main()
{
    printf("\nab");
    printf("\bsi");
    printf("\rha");
    return 0;
}

What will be the o/p of above ?

(a) absiha   (b) ab

                               siha

(c) hai   (d) siha

(13) Which of the following is a type specified ?

     (a) Static   (b) Const

     (c) Unsigned   (d) None of these

(14) What is the range of signed char ?

     (a) 0 to 255   (b) – 128 to 255

     (c) – 127 to 128   (d) – 128 to 127

(15) C is _____.

     (a) procedural language

     (b) object-oriented language

     (c) non-procedural language

     (d) problem-oriented language

2. Attempt any **five** of the following :   **15**

    (1) Why we use do-while loop in C ? Also tell any properties which you know ?

    (2) What is the meaning of prototype of a function ?

    (3) What is ternary operator ? Explain.

    (4) What is pointer to a function ? Explain.

    (5) What is User defined functions ? Explain its use.

    (6) What is meaning of NULL ?

3. Attempt any **three** of the following : 15

   (1) Write a program that determines the grade of steel according to following condition :

      1   Hardness must be greater than 50

      2   Carbon must be less than 0.7

      3   Tensile must be greater than 5500

      Take the input for above qualities through keyboard from user Grades are decided as follows :

      Grade A if all 3 conditions are met.

      Grade B if condition (1) and (2) are met.

      Grade C if condition (2) and (3) are met.

      Grade D if condition (1) and (3) are met.

      Grade E if only one condition met.

      Grade F if none of conditions are met.

   (2) Write a program to print following output :

      2 4 6 8 10

      4 6 8 10

      6 8 10

      8 10

      10

   (3) Write a C program to find out average of 200 integer number.

   (4) Write a program to reverse the string without using function.

4. Attempt any **two** of the following : 15

   (1) What is difference between pass by value and pass by reference ?

   (2) What is pointer ? Explain pointer to point with suitable example.

   (3) Explain string Concatenate, Reverse functions.

5. Attempt any **one** of the following : **10**

   (1) Explain following functions :

      strcmp( ), strlen( ), strcpy( ), strrev( ), strupr( ).

   (2) Write a program that access the structure variable using pointer.

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M. C. A. (Sem. I) (CBCS) Examination
January - 2012
CCA - 1001 - Introduction to Programming Using C
(New Course)

Faculty Code : 003
Subject Code : 007101

Time : **3 Hours**]   [Total Marks : **70**

Q-1. Answer the Following Multiple Choice Questions :   [15]
   1. How Many types of keywords are there in C language?
       A. 30
       B. 31
       C. 32
       D. 33

   2. How many bits occupied by the variable of type unsigned int?

       A. 8
       B. 16
       C. 32
       D. 64

   3. _____ is the member access operator for pointer to structure?

       A. .
       B. :
       C. ,
       D. →

   4. Give the output of the following :
           void main()

             {

               int k , j=0;
               printf(" %d %d", ++j , j++);
               k=++j;
               printf(" %d %d " , j , ++k);

             }
       A. 1 1 3 3
       B. 2 0 3 4
       C. 1 2 3 4
       D. 0 1 2 3

   5. scanf() reads until it finds a _____ .
       A. Comma
       B. Space
       C. Enter
       D. Dot

6. _____ is an exit controlled loop .
   A. For
   B. While

   C. Do While
   D. All
7. Which mode is useful to read an existing content & add new content to the file?
   A. r+
   B. w+
   C. a+
   D. B & C
8. Constants such as FILE, EOF, & NULL are defined in _____ .
   A. stdio.h
   B. conio.h
   C. ctype.h
   D. stdlib.h
9. The default value of any global variable is _____ .
   A. 0
   B. 1
   C. Garbage
   D. Null
10. We can declare symbolic or numeric constant using _____.
    A. #define
    B. #include
    C. #typedef
    D. #infinite
11. Each member name declared in structure within the braces is called....
    A. Element
    B. variable
    C. structure element or member
    D. none of these
12. Variables that hold address of structure, its call....
    A. array of structure
    B. nesting of structure
    C. pointer to structure
    D. none of these
13. Which of the following shows array of pointers?
    A. *p
    B. [10]*p
    C. *p[10]
    D. none of these
14. To receive the string "We have got the guns, you get the glory" in an array char
    str[100] which of the following function would you use ?
    A. scanf("%s",str);
    B. gets(str);
    C. getche(str);
    D. fgetchar(str);

15. Consider the following declaration
    typedef struct
    {

            Char name[20];
            Char middlename[5];
            Char surname[20];
    }NAME
            NAME class[20];

            Here,
    A. class is an array of 20 character only
    B. class is array of 20 names where each name consists of a name, middlename and surname
    C. class is a new type
    D. none of the above

Q-2. Attempt any Five of the Following: [15]
    1. Differentiate flowchart and algorithm
    2. What is the use of linking a program?
    3. Explain for loop with suitable example
    4. What is ternary operator? Explain
    5. What is array? Explain how array elements are stored in memory
    6. What is user defined functions? Explain its use

Q-3. Attempt any Three of the Following: [15]
    1. Write a program to print following series
       $x/1 + x/2 + x/3 + x/4 + \ldots\ldots\ldots\ldots\ldots + x/10$

    2. Write a program to print following output:
    AAAA
    BBB
    CC
    D

    3. Write a program to generate following output using 2D Array:

50	10	10	70
2	3	20	25
3	3	30	36
55	16	60	131

    4. Write a program to calculate salary as per following table:

Gender	Years	Qualification	Salary
Male	>=10	PG	15000
Male	>=10	G	10000
Male	<10	PG	10000

Male	<10	G	7000
Female	>=10	PG	12000
Female	>=10	G	9000
Female	<10	PG	10000
Female	<10	G	6000

Q-4. Attempt any Two of the Following: [15]
1. What is structure? Explain is use with passing structure to function with suitable example
2. What is pointer? Explain pointer to point with suitable example
3. Write a note on different storage class

Q-5. Attempt any One of the Following: [10]
1. Explain following functions
   fopen(), fclose(), fgetc(), fputc(), fgets()
2. Explain following string handling functions
   Compare Concatenate, Reverse, Copy

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M. C. A. - 1 (CBCS) Examination

January - 2011

CCA-1001 : Introduction to Programming Using C

(New Course)

Faculty Code : 003
Subject Code : 007101

Time : **3** Hours]   [Total Marks : **70**

1   Answer the following multiple choice questions: **15**

(1)   The array definition int marks [10] [5]defines an array of
    (1)   10 rows, 5 columns
    (2)   10 columns, 5 rows
    (3)   5 tables, 10 rows
    (4)   None of these

(2)   Which of the following has the highest precedence
    (1)   0
    (2)   &&
    (3)   **
    (4)   None of these

(3)   Which of the following for loop is not valid with respect to
C language.
    (1)   for (i = 1; i<=5;)
    (2)   for (int i=l; i<=5;i++)
    (3)   for(;;)
    (4)   None of these

(4)   Consider the two string s1 ="SU" and s2 ="su" in C, which
value is returned by strcmp(s1,s2)
    (1)   −32
    (2)   32
    (3)   0
    (4)   None of these

(5)   Which of the following hierarchy is true
    (1)   +,>,−
    (2)   *, / , (
    (3)   > , +, *
    (4)   None of these

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(6) In C, ++ is _____ operator
    (1) Ternary
    (2) Binary
    (3) Relational
    (4) None of these

(7) In C, consider a=6, b=7. what is the value of a and b after evaluation of following statement
    ++a>++b? ++a : ++b;
    (1) 7,9
    (2) 8,8
    (3) 6,9
    (4) None of these

(8) Consider the following program segment and say how many times "printf("Ram\n")" statement will be executed
    for (i=;1;i<=10;i++)
            for(j=1,j<=5;j++)
                (for(k=1;k<=2;k++)
                    if(i>j)
                        printf("Ram\n");
    (1) 100
    (2) 10
    (3) 70
    (4) None of these

(9) i=4;
    if(i=5)i=10; else i=20;
    Consider the above statement in C. What is the value of i after evaluating the above statement.
    (1) 5
    (2) 10
    (3) 20
    (4) None of these

(10) To access the element of structure in c which of the following operator can be used
    (1) .
    (2) ->
    (3) (1) and (2) both
    (4) None of these

(11) To access the data pointed by a pointer, which operator is used
    (1) *
    (2) **
    (3) ->
    (4) None of these

(12) int a=4+5/(float)2.0

consider the above statement in C, What will be the value of a after its execution

(1) 4.5

(2) 6.5

(3) 6

(4) None of these

(13) printf("%c",100) statement in C

(1) prints 100

(2) Prints the ASCII equivalent of 100

(3) Prints garbage

(4) None of these

(14) Which of the following for loop of C is syntactically true

(1) for();

(2) for(;);

(3) for(,)

(4) None of these

(15) A switch statement is used to

(1) Switch between two programs

(2) Switch from one variable to another variable

(3) To select from multiple conditional value

(4) None of these

2   Attempt any five of the following   **15**

(1) List the different storage class in C. Explain any one of them.

(2) What is pointer? Briefly explain.

(3) List the different data types available in C with its storage capacity in terms of bytes.

(4) Differentiate : Structure Vs Union

(5) Explain Single dimensional array.

(6) What is algorithm ? Write an algorithm to find the maximum from three integers.

3   Attempt any three of the following :   **15**

(1) What is flowchart ? List and explain different symbols of flowchart.

(2) What is header file ? List different header files available in C. Explain any three functions of any one-header file.

(3) Explain the following :
fopen( ), fclose( ), fscanf( ), fwrite( ), fgetc( )

(4) Write a C program to shor the given integer array of size in n in ascending order.

4   Attempt any two of the following :   **15**

    (1)   What is user define function ? Explain in detail. Write function that will perform the sum of all the elements of the array elements and returns the sum. Pass array as an argument to the function.

    (2)   What is structure ? Write a C program, which defines a structure named "stud" withj no,name, sex and marks. Program also counts the number of female and male.

    (3)   Explain two dimensional array with addition of two matrices.

5   Attempt any one of the following :   **10**

    (1)   Write a C program that will read a text file named "stud.dat" and display it contents on screen. It also gives the summary report as follow :
Number of consonants :
Number of vowels :
Number of digits :

    (2)   List the different looping structures supported in C. Explain any two of them with suitable example.