Set 2

1. What rules must be followed when naming identifiers in C?
2. What are the primary data types in C and their typical sizes?
3. Give examples for type casting in C.
4. With examples, briefly explain about comma, dot and arrow operators in C
5. Write a program that will determine the first ***n*** Fibonacci numbers

***Fi*** = ***Fi-1*** + ***Fi-2*** where ***Fi*** refers to the ith Fibonacci number. By definition, the first two Fibonacci numbers equal **1;** i.e., ***Fi = F2 = 1 .***

1. Using C program, calculate the cumulative product of a list of n numbers.
2. Read a five-letter word into the computer, then encode the word on a letter-by-letter basis by subtracting 30 from the numerical value that is used to represent each letter. Thus if the ASCII character set is being used, the letter a (which is represented by the value ***97)*** would become a **C** (represented by the value ***67),*** etc. Write out the encoded version of the word. Test the program with the following words: white, roses, Japan, zebra.

8**.** Point out the errors, if any, in the following programs:

# include <stdio.h>

int main( )

{

int temp ;

scanf ( "%d", &temp ) ;

switch ( temp )

{

case ( temp <= 20 ) :

printf ( "Ooooooohhhh! Damn cool!\n" ) ;

case ( temp > 20 && temp <= 30 ) :

printf ( "Rain rain here again!\n" ) ;

case ( temp > 30 && temp <= 40 ) :

printf ( "Wish I am on Everest\n" ) ;

default :

printf ( "Good old nagpur weather\n" ) ;

}

return 0 ;

}

9. What will be the output of the following programs:

(a) # include <stdio.h>

int check ( int ) ;

int main( )

{

int i = 45, c ;

c = check ( i ) ;

printf ( "%d\n", c ) ;

return 0 ;

}

int check ( int ch )

{

if ( ch >= 45 )

return ( 100 ) ;

else

return ( 10 \* 10 ) ;

}

(b) # include <stdio.h>

int main( )

{

int n[ 3 ][ 3 ] = {

2, 4, 3,

6, 8, 5,

3, 5, 1

} ;

int i, \*ptr ;

ptr = n ;

for ( i = 0 ; i <= 8 ; i++ )

printf ( "%d\n", \*( ptr + i ) ) ;

return 0 ;

}

(c) # include <stdio.h>

int main( )

{

int x = 4, y = 3, z ;

z = x-- - y ;

printf ( "%d %d %d\n", x, y, z ) ;

return 0 ;

}

(d) # include <stdio.h>

int main( )

{

while ( 'a' < 'b' )

printf ( "malayalam is a palindrome\n" ) ;

return 0 ;

}

10. What is the output of following code?

int m = 100, n = 0;

while ( n == 0 )

{

if ( m < 10 )

break;

m = m-10;

printf(“%d”, m);

}

11. What is the output of the following program?

main ( )

{

int m = 1;

if ( m==1)

{

printf ( “ Delhi “ ) ;

if (m == 2)

printf( “Chennai” ) ;

else

printf(“Bangalore”) ;

}

else;

printf(“ END”);

}

12. What is the output of the following code?

int n = 0, m ;

for (m = 1; m <= n + 1 ; m++ )

printf(m);

13. What is the output of the following segment when executed?

int m = - 14, n = 3;

printf(“%d\n”, m/n \* 10) ;

n = -n;

printf(“%dn”, m/n \* 10);

14. Write a C program to find the number of and sum of all integers greater than 100 and less than 200 that are divisible by 7

15. Write a C program to print the right half pyramid of stars upto a given row number