Set 4

1. What are preprocessor directives in C? Give examples.
2. Differentiate between global and static variables in C.
3. What is the purpose of the keyword **void?** Where is this keyword used?
4. Give the general form of switch-case block in C.
5. Explain the four different unconditional branch statements in C.
6. Differentiate between character constant and escape sequence.
7. Schaum’s series 3.41

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

(a)

# include <stdio.h>

int main( )

{

int x = 4, y, z ;

y = --x ;

z = x-- ;

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

return 0 ;

}

(b)

# include <stdio.h>

int main( )

{

int i = -1, j = 1, k, l ;

k = !i && j ;

l = !i || j ;

printf ( "%d %d\n", i, j ) ;

return 0 ;

}

(c)

# include <stdio.h>

int main( )

{

int i = -4, j, num ;

j = ( num < 0 ? 0 : num \* num ) ;

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

return 0 ;

}

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

(a)

# include <stdio.h>

float circle ( int ) ;

int main( )

{

float area ;

int radius = 1 ;

area = circle ( radius ) ;

printf ( "%f\n", area ) ;

return 0 ;

}

float circle ( int r )

{

float a ;

a = 3.14 \* r \* r ;

return ( a ) ;

}

(b)

# include <stdio.h>

int main( )

{

float a = 15.5 ;

char ch = 'C' ;

printit ( a, ch ) ;

return 0 ;

}

printit ( a, ch )

{

printf ( "%f %c\n", a, ch ) ;

}

10. What will be the output of the following segment when executed?

int x = 10, y = 20;

if( (x<y) || (x+5) > 10 )

printf(“%d”, x);

else

printf(“%d”, y);

11. What is the output of the following code?

int m = 0 ;

do

{

if (m > 10 )

continue ;

m = m + 10 ;

} while ( m < 50 ) ;

printf(“%d”, m);

12. What is the output of the following codes?

(a)

# include <stdio.h>

int main( )

{

int i ;

while ( i = 10 )

{

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

i = i + 1 ;

}

return 0 ;

}

(b)

# include <stdio.h>

int main( )

{

float x = 1.1 ;

while ( x == 1.1 )

{

printf ( "%f\n", x ) ;

x = x – 0.1 ;

}

return 0 ;

}

13. Write a C program to find the smallest and largest elements in an array.

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

15. Write a program that prints the value 10.45678 in exponential format with the following

specifications:

(a) correct to two decimal places;

(b) correct to four decimal places; and

(c) correct to eight decimal places.