STRINGS

1. For the following statements will arr[3] and ptr[3] fetch the same character?[Yes/No]
```
char arr[ ] = “surprised” ;
char *ptr = “surprised” ;
```

2. For the statements in Q.1 does the compiler fetch the character arr[3] and ptr[3] in the same manner?

3. Is there any difference in the following two statements?
```
Char *ch = “nagpur” ;
char ch[ ] = “ nagpur” ;
```

4. When are char a[ ] and char *a treated as same by the compiler?

5. Will the following program compiler successfully?
```
#include<stdio.h>
int main ( )
{
   char a[ ] = “sunstroke” ;
   char *p = ”coldwave” ;
   a = “coldwave” ;
   p = “sunstroke” ;
   printf (“ %s %s\n” , a, p ) ;
   return 0 ;

}
```

6. Which of the following is the correct output for the program given below?
```
#include<stdio.h>
int main ( )
 {
       int i ;
       char a[ ] = “\0” ;
        if ( printf ( “%s” , a) )
             printf( “ The string is not empty\n”) ;
         else
            printf( “ The string is empty\n” ) ;
            return 0;
  }
```
A. The string is not empty. B. The string is empty.
C. No output D.0

7. Which of the following is correct output for the program given below ?
```
#include<stdio.h>
int main ( )
{
   char p[ ] = “%d\n” ;
   p[1] = ‘c’ ;

  printf( p, 65 );
  return 0 ;
}
```
A. A B. a C. c D. 65

8. Which of the following is correct output for the program given below?
```
#include<stdio.h>
int main ( )
 {
      printf( 5+ “fascimile\n” );
      return 0 ;    }
```
A. Error B. Fascimile C. Mile D.None of the above

9. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
 void xyz ( char * , char * ) ;
  int main( )
 {
      char * pstr[2] = {
                                "hello" ,
                                 "good morning"
                           } ;
    xyz ( pstr[0], pstr[1] ) ;
    printf( "%s\n%s" , pstr[0], pstr[1] ) ;
   return 0 ;
}
void xyz ( char *t1, char *t2 )
{
  char *t ;
  t= t1;
  t1 = t2 ;
  t2 = t ;
 }
```

A. Good morning
Hello

B. Address of "Hello" and "Good Morning"

C. Hello
Good morning

D. Gello
Hood morning

10.Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#include<string.h>
int main ( )
{
     char str1[5], str2[5] ;
     int i ;
     gets ( str1 ) ;

  gets ( str2 ) ;
  i = strcmp ( str1, str2 );
  printf ( "%d\n" , i ) ;
  return 0 ;
}
```

A. Unpredictable integer value B. 0 C. -1 D. Error

11. Which of the following is the correct output for the program given below?

```
 #include<stdio.h>
int main( )
 {
    char str1[ ] = "Hello" ;
    char str2[ ] = "Hello" ;
   if( str1 = = str2 )
        printf ( "equal\n" ) ;
    else
        printf ( "unequal\n" ) ;
     return 0 ;
  }
```

A. Equal B. Unequal C. Error D. None of the above

12. Which of the following is the coreect output for the program given below?

```
#include<stdio.h>
int main ( )
{
   char t ;
   char *p1 = "harder you work" , *p2 ;
   p2 = p1 ;
   p1 = "Luckier you get" ;
```

```
   printf( “%s %s\n” , p1, p2 ) ;
  return 0;
 }
```

A. Harder you work luckier you get
B. Luckier you get harder you work
C. Harder you work Harder you work
D. Luckier you get Luckier you get

13. What will be the output of the following program ?

```
 #include<stdio.h>
 int main ( )
{
    printf("%u %s\n" , & "Hello" , &"Hello" ) ;
   return 0 ;
}
```

A. 1760 Hello B. Hello 1760 C. Hello Hello D. Error

14. Which of the following is correct output for the program given below?

```
 #include<stdio.h>
int main ( )
{
   char str[10] = “Angel” ;
   str[6] = ‘d’ ;
   printf ( “%s\n” , str ) ;
   return 0 ;
  }
```

A. Angel d B. d C. Angel D. Error

15. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#define str str[ ]
 int main( )
 {
    char str = “come september” ;
    printf( “%s\n” , str ) ;
    return 0 ;
   }
```

A. Error B. come september C. Base address of str D. No output

16. Which of the following is the correct output for the program given below?

```
 #include<stdio.h>
 int main( )
 {
     printf( “Icecream” “chocolate pie\n” );
    return 0 ;

}
```

A. Error B. Icecream chocolate pie C. Icecream D. Chocoloate pie

17. Which of the following is the correct output for the program given below?

```
 #include<stdio.h>
 int main( )
 {
    char str[ 25] = “catch me, if you can!” ;
    printf( “%s\n” , &str + 2) ;
    return 0 ;
  }
```

A. Garbage value B. Error C. No output D. catch me, if you can!

18. What will be the output of the following program if characters ‘a, ‘b’ and ‘c’ and enter are supplied to it?

```
#include<stdio.h>
int main( )
{
```

```
    void fun ( ) ;
    fun ( ) ;
    printf("\n") ;
    return 0 ;
}
void fun ( )
{
   char c ;
    if( ( c = getchar ( ) )! = '\n ' )
        fun ( );
    printf("%c" , c ) ;
}
```

A. abc abc B. bca C. Infinite loop D. cba

19. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#include<string.h>
int main( )
{
   char str1[ ] = "Hello" ;
   char str2[10] ;
   char *t, *s ;
   s= str1 ;
   t = str2 ;
   while ( *t = *s )
        *t++ = *s++ ;
   printf ( "%s\n", str2) ;
  return 0 ;
}
```

A. Hello B. HelloHello C. No output D. Ello

20. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#include<string.h>
int main( )
{
    char str1[20] = "Hello" , str2[20] = "World" ;
    printf( " %s\n" , strcpy ( str2, strcat ( str1, str2 ) ) ) ;
   return 0 ;
}
```

A. Hello B. World C. Hello World D. WorldHello

21. Which of the following is the correct output for the program given below?

```
include<stdio.h>
#include<string.h>
 int main ( )
{
 char str[ ] = "sales\0\man\0"
 printf( "%s\n", str ) ;
  return 0 ;
}
```

A. Man B. sales C. sales man D. sales\0man

22.Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main ( )
{     char str[ ] = " sales\0man\0 " ;
printf( " %d\n" , sizeof ( str ) ) ;
    return 0 ;
  }
```

A. 10 B.6 C.5 D.11

23. Which of the following is correct output for the program given below?

```
 #include<stdio.h>
#include<string.h>
int main( )
{
char str[ ] = " sales\0\man\0" ;
  printf( "%d\n" , strlen ( str ) ) ;
return 0 ;
}
```

A. 10 B.6 C. 5 D. 11

24. If size of an integer is 4 bytes, which of the following is the correct output for the program given below?

```
#include<stdio.h>
 #include<string.h>
int main( )
{
printf ( "%d\n" , strlen ( "123456" ) ) ;
   return 0 ;
   }
```

A. 6 B. 12 C. 7 D. 2

25.Which of the following is the correct output for the program given below?

```
 #include<stdio.h>
int main( ){
    printf( "%c\n" , "abcdefgh"[4] ) ;
    Return 0 ;
}
```

A. Error B. d C. e D. abcdefgh

26. Which of the following is the correct output for the program given below?

```
 #include<stdio.h>
 int main( )
{
char str[7] = "strings" ;
 printf ( "%s\n " , str ) ;
 return 0 ;
}
```

A. Error. array bounds overflow. B. Strings
C. Cannot predict D. None of the above

27. How will you output \n on the screen?

28. If sizes of a char, an int and a float are 1, 4 and 8 bytes respectively, which of the following is the correct output for the program given below?

```
 #include<stdio.h>
 int main( )
 {
     char ch = 'A' ;
      printf( "%d %d %d" , sizeof ( ch ), sizeof ( sizeof ( 'A' ) ), sizeof ( 3.14 ) ) ;
     printf ( "\n" ) ;
    return 0 ;
  }
```

A. 1 2 4 B. 1 4 8 C. 2 2 4 D. 2 4 8

29. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main( )
{
    printf( "%d %d %d\n" , sizeof( 3.0f), sizeof ( "3" ), sizeof ( 3.0 ) ) ;
   return 0 ;
 }
```

A.8 1 4 B.4 2 8 C.4 2 4 D.10 3 4

30. Is the following program correct ? [Yes/No]

```
 #include<<stdio.h>
 #include<string.h>
int main ( )
{
     char *str1 = "united" ;
     char *str2 = "front" ;
     char *str3 ;
    str3 = strcat ( str1 , str2 ) ;
    printf( " %s\n" , str3 ) ;
    return 0 ;
 }
```

31. How will you improve the code in 30 above ?

32. In the following code which function will get called the user-defined strcpy( ) or the one in the standard library?

```
#include<stdio.h>
#include<string.h>
void strcpy ( char* , char * ) ;
int main ( )
 {
     char str1[ ] = "keep india beautiful… immigrate!" ;
     char str2[40] ;
     strcpy ( str2, str1 ) ;
     printf( %s\n" , str2 ) ;
     return 0 ;
}
void strcpy ( char *t, char *s )
{
   while ( *s)
    {
        *t = *s ;
        t++ ;
        s++ ;
     }
    *t = '\0' ;
}
```

33. Can you compact the code in strcpy( ) function given below into one line?

```
Void strcpy (char *t, char *s )
 {
     while ( * s )
       {
         *t = *s ;
          t++ ;
         s++ ;
       }
         *t = '\0' ;
}
```

34. If size of a pointer is 4 bytes then what will be the output of the following program ?

```
#include<stdio.h>
#include<string.h>
int main ( )
```

```
{
        char *str[ ] = { “frogs”, “do” , “not” , “die.” , “they” , “croak!” };
        printf( “%d %d\n”, sizeof (str ), strlen ( str[0] );
        return 0 ;
}
```

35. How will you find the length of each string in the program 34 above ?

36. What is the difference in the following declaration ?

```
char *p = “samuel” ;
char a[ ] = “samuel” ;
```

37. While handling a string do we always have to process it character by character or there exists a method to process the entire string as one unit.

38. Which of the following function is the correct that finds the length of a string ?

A.
```
int xstrlen ( char *s )
  {
     int length = 0;
     while ( *s != ‘\0’ )
      {
                length++ ; s++ ;
      }
        return ( length ) ;
  }
```

B.
```
int xstrlen ( char s )
      {
         int length = 0 ;
         while (  s != ‘\0’ )
      {
        length++ ; s++ ;
       }
       return ( length ) ;
       }
```

C.
```
int xstrlen ( char *s )
  {
     int length = 0 ;
     while ( *s !=’\0’ )
      {
          length++ ;
       }
       return ( length ) ;
    }
```

D.
```
int xstrlen ( char *s )
  {
     int length = 0 ;
     while ( *s != '\0' )
      {
          s++ ;
       }
       return ( length ) ;
    }
```

39. Which of the following is the correct output for the program given below?

```
#include< stdio .h>
#include< string .h>
 int main ( )
 {
    static char s[ ] = “Hello !” ;
    printf( “%d\n” , *( s + strlen ( s ) ) ) ;
   return 0 ;
  }
```

A. 8 B. 0 C. 16 D. Error

40. Which of the following function can be used to find the first occurrence of a given string in another string?

A. strchr( ) B. strrchr( ) C.strstr( ) D.strnset( )

41. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#include<string.h>
 int main ( )
  {
        char sentence[80] ;
       int i ;
        printf( " enter a line of text\n" ) ;
        gets ( sentence ) ;
         for ( i = strlen ( sentence ) - 1 ; i > = 0 ; i-- )
             putchar ( sentence[ i ] ) ;
           return 0 ;
  }
```

A. The sentence will get printed in the same order as it entered
B. The sentence wil get printed in reverse order.
C. Half of the sentence will get printed.
D. None f the above.

42. The library function used to reverse a string is

A. strstr( )
B. strrev( )
C. revstr( )
D. None of the above

43. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
#include<string.h>
 int main( )
 {
     static char str1[ ] = "dills" ;
     static char str2[20] ;
     static char str3[20] = "daffo" ;
      int I ;
      I = strcmp ( strcat ( str3, strcpy ( str2, str1 ) ), "daffodills" ) ;
       printf( " %d\n" , I ) ;
       return 0 ;
 }
```

A. 0 B. 1 C. 2 D. Cannot be determined

44. Which of the following function is more appropriate for reading in a multi-word string ?

A. printf( ) B. scanf( ) C. gets( ) D. puts( )

45. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main ( )
{
    static char mess[6][30] = {
                                "Don't walk in front of me..." ;
                                "I may not follow," ,
                                "Don't walk behind me…." ;
                                "just walk beside me..." ;
                                 "And be my friend."
                               } ;
 printf( "%c %c\n", *( mess[2] + 9 ), * ( * ( mess + 2 ) + 9 ) ) ;
 return 0 ;
}
```

A. t t B. k k C. n k D. m f

46. Which of the following function sets first n characters of a string to a given character?

A. strinit( ) B. strnset( ) C. strset( ) D. strcset( )

47. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main( )
{
    char str[ ]= “nagpur” ;
    str[0] = ‘k’ ;
    printf(“%s”, str );
    str = “kanpur” ;
    printf (“%s\n” , str + 1 ) ;
    return 0 ;
}
```

A. Kagpur kanpur B. Nagpur kanpur C. Kagpur anpur D.Error

48. The library function used to find the last occurrence of a character in a string is :

A. strnstr( ) B. laststr( ) C. strchr( ) D. strstr( )

49. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main( )
{
    printf( 5 + “ Good morning\n”) ;
    return 0 ;
}
```

A. Good morningB. Good C. M D. morning

50. If the given two strings are identical, then strcmp( ) function returns

A. -1 B. 1 C. 0 D. Address of the first string

51. Which of the following statements are correct about the following program?

```
#include<stdio.h>
int main( )
{
    char str[20], *s ;
    printf( “enter a string\n” ) ;
    scanf( “%s”, str ) ;
    s = str ;
    while ( *s ! = ‘\0’ )
    {
        if ( *s >= 97 && *s <= 122 )
            *s = *s – 32 ;
        s++ ;
    }
    return 0 ;
}
```

A. The code converts a string to an iteger.
B. The code converts lower case character to upper case.
C. The code converts upper case character to lower case.
D. None of the above.

52. Which of the following statements are correct ?

A. A string is a collection of characters terminated by ‘\0’.
B. The format specifier %s is used to print a string.
C. The length of a string can be obtained using strlen( ).
D. The pointers CANNOT work on string.

53. Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main( )
{
    char *names[ ]= {
                    “Roshni” ;
```

```
                                    "Manish" ;
                                    "Sona" ;
                                    "Honey" ;
                                    "Ritu" ;
                                } ;
        int i ;
        char *t ;
        t = names[3] ;
        names[3]= names[4] ;
        names[4] = t ;
        for( i=0 ; i<= 4 ; i++ ) ;
          printf("%s", names[[i] ) ;
         printf("\n") ;
         return 0 ;
      }
```

A. Roshni Manish Sona Honey Ritu
B. Roshni Manish Sona Ritu Honey
C. Roshni Manish Honey Sona Ritu
D. Roshni Manish Ritu Sona Honey

54.Which of the following statements is correct ?

A. strcmp (s1 , s2) returns a number less then 0 if s1 > s2
B. strcmp (s1 , s2) returns a number greater then 0 if s1 < s2
C. strcmp (s1 , s2) returns 0 if s1 = = s2
D. strcmp (s1 , s2) returns 1 if s1 == s2

55.Which of the following is the correct output for the program given below?

```
#include<stdio.h>
int main( )
 {
      static char s[25] = "The cocaine man" ;
      int i= 0 ;
      char ch ;
      ch = s[++i]  ;
      printf( "%c" , ch );
      ch = i++[s] ;
       printf("%c" , ch ) ;
        ch= ++i[s] ;
        printf ( "%c\n" , ch ) ;
        return 0 ;
  }
```

A. hhe! B. he c C. The c D. Hhec

56. Which of the following statements are correct about the C declarations given below?

```
Char *p = "sanjay" ;
char a[ ] = "sanjay" ;
```

A. There is no difference in the declarations and both serve the same purpose.
B. The first statement is incorrect since '\0' is not given in the string , whereas the second is incorrect as size of array is not mentioned.
C. P is a non-const pointer pointing to a non-const string, whereas a is a const pointer pointing to a non-const string.
D. The pointer p can be modified to point to another string, whereas individual characters within array a can be changed.
E. In both cases the '\0' will be added at the end of the string "sanjay".

57. If size of a pointer is 32 bits what will be the output of the following program?

```
#include<stdio.h>
int main( )
{
   char a[ ] = "visual c++" ;
   char *b = "visual c++" ;
 printf(" %d %d\n" , sizeof ( a ), sizeof ( b ) ) ;
 printf (" %d %d\n" , sizeof ( *a )  sizeof ( *b ) ) ;
```

```
return 0 ;
}
```

58. How will you pass the number of elements present in an array to a function in a generic way?

59. Which of the following expressions would yield the value 100 for an array defined below?

```
Int arr[][2][3] = {
                    {
                        { 100, 200, 300 },
                        { 400, 500, 600 }
                      },
                      {
                        { 10, 20, 30 },
                        { 40, 50, 60 }
                      }
                      {
                        { 1, 2, 3 },
                        { 4, 5, 6 }
                      }
                  };
```

A. arr[0][0][0] B. **arr[0] C. ***arr D. *arr[0][0]