Part I QUESTIONS

1. What is the output of the followng program:

```
void foo(char *p)
{
      p = (char *) 0xFFFF;
}

int main()
{
     char *p = 0x0000;
     foo(p);
     printf("%p", p);
}
```

a) 0x0000
b) 0xFFFF
c) (nil)
d) Will crash when run

2. What will be the output of the following program

```
int i = 50;
void foo(int i)
{
     i*= 2;
}

int main()
{
     int i=1;
     foo(i);
     printf("%d", i);
}
```

a) 1
b) 2
c) 50
d) 100

3. What will be the output of the following program

```
int foo()
{
     static int i=0;
     i++;
     return i;
}

int main()
{
     printf("%d ", foo());
     printf("%d ", foo());
     printf("%d ", foo());
}
```

a) Compilation Error
b) 0 0 0
c) 1 1 1
d) 1 2 3

4. In C you can,

a) Define local static variables
b) Define global static variables
c) Define static functions
d) Define all of the above

5. What will be the output of the following program

```
/*
Assume sizeof char=1, int=2, float=4
Assume sizeof a pointer =4
*/

int main()

{

     char *cp;
     int *ip;
     float *fp;
     printf("%d %d %d\t", sizeof(*cp), sizeof(*ip),
     sizeof(*fp));
     printf("%d %d %d\n", sizeof(cp), sizeof(ip),
     sizeof(fp));
}
```

a) Compilation Error

b) 1 2 4 4 4 4
c) 2 2 2 1 2 4
d) 4 4 4 4 4 4

6. What is the output of the following program:

```
/*
Assume sizeof char=1, int=2, float=4
Assume sizeof a pointer =4
*/
struct employee
{
     char* name;
     float sal;
};
int main()
{
     struct employee e1;
     e1.sal = 50.0;
     e1.name = (char *) malloc(30);
     strcpy(e1.name, "Sachin 10 the great.");
     printf("%d %d", sizeof(struct employee),
sizeof(e1));
}
```

a) 8 8
b) 8 30
c) 8 34
d) 8 38

7. Consider the following pointer _expression:

```
--*p++;
```

In what order are the operators executed, state them from the first executed to the last executed.

a) --, *, ++
b) *, --, ++
c) ++, --, *
d) *, ++, --

8. What is the output of the following program:

```
struct employee
{
     char* name;
     float sal;
};

int main()
{
     struct employee e1, e2;

     e1.sal = 50.0;
     e2.sal = 150.0;
     e1.name = (char *) malloc(20);
     e2.name = (char *) malloc(20);

     e1 = e2;

     strcpy(e1.name, "Kapil Dev");
     strcpy(e2.name, "Sunil Gavaskar");

     printf("%s %f", e1.name, e1.sal);
}
```

a) Kapil Dev 50.0
b) Sunil Gavaskar 150.0
c) Kapil Dev 150.0
d) Sunil Gavaskar 50.0

9. What will be the output of the following program

```
#define SQUARE(x) x * x
int main()
{
      printf("%d ", SQUARE(3+2));
}
```

a) 5
b) 10
c) 11
d) 25

10. What happens when you increment a void* ?

a) Compilation error.
b) It goes up by the size of a pointer.
c) It goes up by the size of the type it is pointing to.
d) Run Time error

11. What happens when you increment a void** ?

a) Compilation error
b) It goes up by the size of a pointer
c) It goes up by the size of the type it is pointing to
d) Run Time error

12. What will be the output of the following program

```
int main()
{
     int i;
     printf("%d", i);
}
```

a) 0
b) -1
c) 0xFFFF
d) Garbage

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

```
Consider the following code:
struct node
{
     char *firstname;
     char *lastname;
     char node* next;
};

int main()
{
     struct node *nPtr = (struct node *) malloc(
                                   sizeof(struct node)
                          );
     nPtr->firstname = (char*) malloc(10);
     nPtr->lastname = (char*) malloc(10);
     nPtr->next = NULL;
          // deallocating allocated memory???
}
```

What is the correct way the deallocate memory in the above program.

```
a) free(nPtr);
b) free( nPtr->firstname ); free( nPtr->lastname );
                                          nPtr=NULL;
c) free( nPtr->firstname ); free( nPtr->lastname );
                                          free(nPtr);
d) free(nPtr); free( nPtr->firstname ); free( nPtr->
                                          lastname);
```

14. What should be the prototype of a function that swaps two float pointers?

```
a) void swap(float, float);
b) void swap(float *, float *);
c) void swap(float **, float **);
d) void swap(float ***, float ***);
```

15. What will be the output of the following program

```
/*
Assume sizeof char=1, int=2, float=4
Assume sizeof a pointer =4
*/

int main()
{
     char *cp = (char *) 0x0000;
     int *ip =  (int *)  0x0000;
     float *fp = (float *) 0x0000;

     cp++; ip++; fp++;
     printf("%d %d %d", cp, ip, fp);
}
```

a) 1 1 1
b) 1 2 4
c) 2 2 2
d) 4 4 4

16. What is the output of the followng program:

```
int main()
{
     char *p = (char*) malloc( strlen("Keep the
faith") );
     strcpy(p,"Keep the faith" );
     printf("%s", p);
}
```

a) Compilation error
b) Keep the faith
c) Keep the faith Garbage
d) Garbage

17. What will be the output of the following program

```
int foo()
{
     static int i=0;
     i++;
     return i;
}

int main()
{
     printf("%d ", foo());
     printf("%d ", foo());
     printf("%d ", foo());
}
```

a) Compilation Error
b) 0 0 0
c) 1 1 1
d) 1 2 3

18. What is the output of the followng program:

```
void foo(char *p)
{
     p = (char *) 0xFFFF;
}

int main()
{
     char *p = 0x0000;
     foo(p);
     printf("%X", p);
}
```

a) 0x0000
b) 0xFFFF
c) 0xffff
d) Will crash when run

19. What will be the output of the following program

```
/*
Assume sizeof char=1, int=2, float=4
Assume sizeof a pointer =4
*/
int main()
{
     char *cp;
     int *ip;
     float *fp;

     printf("%d %d %d", sizeof(cp),
     sizeof(ip),sizeof(fp));
}
```

a) Compilation Error
b) 1 2 4
c) 2 2 2
d) 4 4 4

20.You have to write a program where that implements a cirlular linklist. Each node will store a char*.The node declaration will have how many entries?

a) 2
b) 3
c) 4
d) 5

21. What will be the output of the following program

```
/*
     Assume sizeof char=1, int=2, float=4
     Assume sizeof a pointer =4
*/
union endian
{
     unsigned int i;
     char c;
};

int main()
{
     printf("%d", sizeof(union endian) );
}
```

a) 2
b) 3
c) 4
d) 8

22. What will be the output of the following program

```
int i = 50;
void foo(int i)
{
     i *= 2;
}

int main()
{
     int i=1;
     foo(i);
     printf("%d", i);
}
```

a) 1
b) 2
C) 50
d) 100

23. You have to write a program where that implements a doubly linklist. Each node will store a float.
The node declaration will have how many entries?

a) 2
b) 3
c) 4
d) 5

24. A long C program is given -- try to be familiar with few of the concepts listed below

```
int *num=(int []){10,1,5,22,90};
main()
{
     int *p,*q;
     int i;
     p = num;
     q = num+2;
     I = *p++;
     printf("*p = %u\n*q = %u\ni = %u\n(q - p) =
     %u\n", *p, *q, i, q - p);
}
```

how the values will change?

25. One pointer diff is given like this:

```
int *(*p[10])(char *, char*)
```

Explain the variable assignment

26.
```
char *a[4]={"jaya","mahe","chandra","buchi"};
```

What is the value of sizeof(a) /sizeof(char *)

27. For the following C program

```
void fn(int *a, int *b)
{
     int *t;
     t = a;
     a = b;
     b = t;
}

main()
{
     int a = 2;
     int b = 3;
     fn(&a, &b);
     printf("%d,%d", a,b);
}
```

What is the output?

a) Error at runtime
b) Compilation error
c) 2 3
d) 3 2

28. For the following C program

```
#define scanf "%s is a string"

int main()
{
     printf(scanf,scanf);
}
```

What is the output.

29. For the following C program

```
int main()
{
     char *p = "abc";
     char *q = "abc123";
     while(*p = *q)
          printf("%c %c",*p,*q);
}
```

a) aabbcc
b) aabbcc123
c) abcabc123
d) Runtime Error

30. What is the value of the following?

```
printf("%u",-1)
```

a) -1
b) 1
c) 65336
d)UINT_MAX

31. For the following C program

```
#define void int
#define PRINT(n) printf("%d ", n)
int i = 300;

int main(void)
{
     int i = 200;
     {
          int i = 100;
          PRINT(i)
     }
     PRINT(i);
}
```

What is the output?

32. For the following C program

```
int x = 2;
x = x<<2;
printf("%d ",x);
```

33. For the following C program

```
int a[] = {0,0X4,4,9}; /*some values are given*/
int i = 2;
printf("%d %d",a[i],i[a]);
```

What is the value?

34. How can the word YES be stored in any array.

a)
```
array[1] = 'Y'
array[2] = 'E'
array[3] = 'S'
array[4] = '\0'
```
b)
```
array[0] = "Y"
array[1] = "E"
array[2] = "S"
array[3] = "\0"
```
c)
```
array[1] = "Y"
array[2] = "E"
array[3] = "S"
```
d)
```
array[0] = 'Y'
array[1] = 'E'
array[2] = 'S'
array[3] = '\0'
```

35. What is true about the following C functions?

a) Need not return any value.
b) Should always return an integer.
c) Should always return a float.
d) Should always return more than one value.

36. enum number{ a = -1, b = 4, c,d,e,} what is the value of e?

a) 7
b) 4
c) 5
d) 3

37. Which of the following about automatic variables within a function is incorrect?

a) Its type must be declared before using the variable.

b) They are local.
c) They are not initialized to zero.
d) They are global.

38. Consider the following program segment

```
int n, sum = 5;
switch(n)
{

     case 2:sum = sum-2;
     case 3:sum* = 5;
            break;
     default:sum = 0;
}
```

if n = 2, what is the value of the sum?
a) 0
b) 15
c) 3
d) None of these.

39.Which of the following is not an infinite loop?

```
a) x=0;
     b) # define TRUE 0....
         do{
                  While(TRUE){....}
                /*x unaltered within the loop*/
C) for(;;)   {....}
              ....}
While(x==0);
     d) While(1) {....}
```

40. What does the following function print?

```
func(int i)
{
     if(i%2)
          return 0;
      else
           return 1;
}

main()
{
     int i = 3;
     i = func(i);
     i = func(i);
     printf("%d",i)
}
```

a) 3
b) 1
c) 0
d) 2

41. Consider the following program

```
int main()
{
     int a[5] = {1,3,6,7,0};
     int *b;
     b = &a[2];
}
```

The value of b[-1] is
a) 1
b) 2
c) -6
d) none

42. Given a piece of code

```
int x[10];
int *ab;
ab = x;
```

To access the 6th element of the array which of the following is incorrect?

a) *(x+5)
b) x[5]
c) ab[5]
d) *(*ab+5} .

43. Which of the following is not a storage class in C?

a) Static
b) Register
c) Extern
d) Stack

44. Which of the following 'return' statement is correct?

a) return, return;
b) return(1, 2, 3);
c) return(return 4);
d) return 5, return 6);

45. The second argument to fopen() function is?

a) char
b) const char *
c) int *
d) FILE *

46. What is the output of the program?

```
#include <stdio.h>

int main()
{
        char buffer[10] = {"Genesis"};
        printf(" %d ", &buffer[4]- (buffer));
}
```

a) 3
b) 4
c) 0
d) Illegal pointer subtraction

47. If "arr" is an array of 5 x 5 dimension, arr[2][4] is same as

a) **(a+3+4)
b) *(a+3)+*(a+4)
c) **(a+3)+4
d) *(*(a+2)+4)

48. What will be the result of the following program?

```
char *g()
{
     static char x[1024];
     return x;
}

main()
{
     char*g1 = "First String";
     strcpy(g(),g1);
     g1 = g();
     strcpy(g1,"Second String");
     printf("Answer is:%s", g());
}
```

a) Answer is: First String
b) Answer is: Second String
c) Run time Error/Core Dump
d) None of these

49. Output Of the program?.

```
void zap(int n)
{
     if(n<=1)
          zap = 1;
     else
          zap= zap(n-3)+zap(n-5);
}
int main()
{
     zap(6);
}
```

50.

```
int main()
{
     char *p1 = "Name";
     char *p2;

     p2 = (char *)malloc(20);
     while(*p2++=*p1++);
     printf("%s\n",p2);
}
```

51.

```
int main()
{
     int x = 20, y = 35;
     x = y++ + x++;
     y = ++y + ++x;
     printf("%d %d\n",x,y);
}
```

52.

```
int x;
main()
{
     int x = 0;
     {
          int x = 10;
          x++;
          change_value(x);
          x++;
          modify_value();
          printf("First output: %d\n",x);
     }
     x++;
     change_value(x);
     printf("Second Output : %d\n",x);
     modify_value();
     printf("Third Output : %d\n",x);
}

modify_value()
{
     return (x+=10);
}

change_value()
{
     return(x+=1);
}
```

53.

```
int main()
{
     int x = 10, y = 15;
     x = x++;
     y = ++y;
     printf("%d %d\n",x,y);
}
```

54.

```
main()
{
     int a = 0;
     if(a=0)
          printf("Ramco Systems\n");
     printf("Ramco Systems\n");
}
```

55.

```
#include<stdio.h>
int SumElement(int *,int);

int main(void)
{
     int x[10];
     int i = 10;
     for(;i;)
     {
          i--;
          *(x+i) = i;
     }
     printf("%d",SumElement(x,10));
}

int SumElement(int array[],int size)
{
     int i = 0;
     float sum = 0;
     for(;i<size;i++)
     sum+=array[i];
     return sum;
}
```

56. FIND THE OUTPUT FOR THE FOLLOWING C PROGRAM

```
#include<stdio.h>
int main(void);
int printf(const char*,...);
int main(void)
{
     int i = 100, j = 10, k = 20;
     int sum;
     float ave;
     char myformat[] = "ave=%.2f";
     sum = i+j+k;
     ave = sum/3.0;
     printf(myformat,ave);
}
```

57. FIND THE OUTPUT FOR THE FOLLOWING C PROGRAM

```
#include<stdio.h>
int main(void);
{
     int a[10];
     printf("%d",((a+9) + (a+1)));
}
```

58. FIND THE OUTPUT FOR THE FOLLOWING C PROGRAM

```
#include<stdio.h>
int main(void)
{
     struct s{
          int x;
          float y;
     }s1={25,45.00};

     union u{
          int x;
          float y;
     } u1;

     u1=(union u)s1;
     printf("%d and %f",u1.x,u1.y);
}
```

59. Find the output for the following C program

What's the O/P if c = 4?

```
#include<stdio.h>
int main(void)
{
     unsigned int c;
     unsigned x=0x3;
     scanf("%u",&c);
     switch(c&x)
     {
          case 3: printf("Hello!\t");
          case 2: printf("Welcome\t");
          case 1: printf("To All\t");
          default:printf("\n");
     }
}
```

60. Find the output for the following C program

```
#include<stdio.h>

int fn(void);
void print(int,int(*)());
int i = 10;

int main(void)
{
     int i = 20;
     print(i,fn);
}

void print(int i,int (*fn1)())
{
     printf("%d\n",(*fn1)());
}
int fn(void)
{
     return(i-=5);
}
```

61. Find the output for the following C program

```
#include<stdio.h>
int main(void);
{
     char number[5][6]={"Zero","One","Two",
                        "Three","Four"};
     printf("%s is %c",&number[4][0],number[0][0]);
}
```

62. Find the output for the following C program

```
int bags[5]={20,5,20,3,20};
int main(void)
{
     int pos=5,*next();
     *next() = pos;
     printf("%d %d %d",pos,*next(),bags[0]);
}
int *next()
{
     int i;
     for(I = 0; i<5; i++)
          if (bags[i]==20)

     return(bags+i);
     printf("Error!");

     exit(0);
}
```

63. Find the output for the following C program

```
#include<stdio.h>
int main(void)
{
     int y,z;
     int x = y = z = 10;
     int f = x;
     float ans = 0.0;

     f *=x*y;
     ans=x/3.0+y/3;

     printf("%d %.2f",f,ans);
}
```

64. Find the output for the following C program

```
#include<stdio.h>
int main(void);
{
     double dbl = 20.4530,d = 4.5710,dblvar3;
     double dbln(void);
     dblvar3 = dbln();

     printf("%.2f\t%.2f\t%.2f\n",dbl,d,dblvar3);
}

double dbln(void)
{
     double dblvar3;
     dbl = dblvar3 = 4.5;

     return(dbl+d+dblvar3);
}
```

65. Find the output for the following C program

```
#include<stdio.h>
static int i = 5;
int main(void)
{
     int sum = 0;
     do
     {
          sum+=(1/i);
     }while(0<i--);
}
```

66. Find the output for the following C program

```
#include<stdio.h>
int main(void)
{
     int oldvar = 25,newvar = -25;
     int swap(int,int);
     swap(oldvar,newvar);

     printf("Numbers are %d\t%d",newvar,oldvar);
}

int swap(int oldval,int newval)
{
     int tempval = oldval;
     oldval = newval;
     newval = tempval;
}
```

67. Find the output for the following C program

```
#include<stdio.h>
int main(void);
{
     int I = 100,j = 20;
     i++=j;
     i*=j;
     printf("%d\t%d\n",i,j);
}
```

68. Find the output for the following C program

```
#include<stdio.h>
int main(void);
int newval(int);

int main(void)
{
     int ia[]={12,24,45,0};
     int i;
     int sum = 0;
     for(i=0;ia[i];i++)
     {
          sum+=newval(ia[i]);
     }
     printf("Sum= %d",sum);
}

int newval(int x)
{
     static int div=1;
     return(x/div++);
}
```

69. Find the output for the following C program

```
#include<stdio.h>

int main(void)
{
     int var1,var2,var3,minmax;
     var1 = 5;
     var2 = 5;
     var3 = 6;
     minmax =
     (var1>var2)?(var1>var3)?var1:var3:(var2>var3)?var
     2:var3;
     printf("%d\n",minmax);
}
```

70. Find the output for the following C program

```
#include<stdio.h>

int main(void);
{
     void pa(int *a,int n);
     int arr[5]={5,4,3,2,1};

     pa(arr,5);
}

void pa(int *a,int n)
{
     int i;
     for(i = 0; i<n; i++)
          printf("%d\t",*(a++)+i);
}
```

71. Find the output for the following C program

```
#include<stdio.h>
int main(void);
static int i = 50;
int print(int i);

int main(void)
{
     static int i = 100;
     while(print(i))
     {
          printf("%d\n",i);
          i--;
     }
}

int print(int x)
{
     static int i = 2;
     return(i--);
}
```

72. Find the output for the following C program

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

typedef struct NType
{
     int i;
     char c;
     long x;
} NewType;

int main(void)
{
     NewType *c;
     c = (NewType *)malloc(sizeof(NewType));
     c->i=100;
     c->c='C';
     (*c).x=100L;

     printf("(%d,%c,%4Ld)",c->i,c->c,c->x);
}
```

73. Find the output for the following C program

```
#include<stdio.h>
int main(void);
const int k = 100;

int main(void)
{
     int a[100];
     int sum = 0;
     for(k=0;k<100;k++)
          *(a+k)=k;

     sum+=a[--k];

     printf("%d",sum);
}
```

74. What is the parameter passing mechanism to Macros Called?

75.

```
# define PRINT(num)  printf(#num" = %d", num);

void func(int x,int y)
{
     X = 3;
     y = 2;
}
main()
{
     int i;
     func(i,i);

     print(i);
}
```

76. which of the following is illegal for the program?

```
main()
{
     char const *p = "p";

}
```

a) p++
b) *p++
c)(*p)++
d) None

77. what is the output of the following program

```
void print(int ** arr)
{
     printf("0 %f, 1 %f, 2 %f”,
               arr[0][0],arr[0][1],arr[0][2]);
}
main()
{
     int a[][3]={ {1,2,3},
                  {4,5,6}
                }
     int ** arr=a;
     print(arr);
     arr++;
     print(arr);
}
```

78. If FILE1 and FILE2 are defined what files will be included in the Program.

```
#ifdef FILE1
     #include file1.h
#elifdef FILE2
     #include file2.1
#elifdef FILE3
     #include file3.h
#endif
```

79.

```
int a[] = {1,2,3,4};
main()
{
     printf("%d",sizeof(a));
}
```

What will be the output of the program when executed.

80.

```
char name = "Krishna Prasad";
main()
{
     name[7] = '\0';
     printf("%s",name);
}
```

what's the o/p.

81. what is the meaning of

```
if (x^y = ~0)
```

82. how can you simplify this routine

```
int max (int a, int b
{
     if (a > b) then
         return a;
      else
         return b;
 }
```

83. Which of these is an invalid dataname?

a) wd-count
b) wd_count
c) w4count
d) wdcountabcd

84. What is the output of the following program

```
int main ()
{
      unsigned int i;

      for (i = 10; i >= 0; i--)
      printf ("%d", i);
}
```

a) prints numbers 10 - 0
b) prints nos 10 - 1
c) goes into infinite loop

85. What is the value of the following expression?

```
i = 1;
i << 1 % 2
```

a) 2
b) -1
c) 1
d) 0

86.
```
int ia[5] = {0};
*ia + 1 - *ia + 3
```

a) -
b) -2
c) 4
d) none of the above

87. The following statement is " The size of a struct is always equal to the sum of the sizes of its members"

a) valid
b) invalid
c) can't say

88. How many x's are printed?

```
for (i = 0, j = 10; i < j; i++, j--)
  printf ("x");
```

a) 10
b) 5
c) 4
d) none

89. output?

```
main ()
{
     int i = 2, j = 3, k = 1;
     swap (i, j)
     printf ("%d %d", i, j);
}
swap (const int i, int const j)
{
     int temp;
     temp = i; i = j; j = temp;
}
```

```
90. int i, b[] = {1, 2, 3, 4, 5}, *p;
    p = b;
    ++*p;
    p += 2;

    What is the value of *p;
    a) 2
    b) 3
    c) 4
    d) 5
```

```
91. x = fopen (b, c)
    what is b?

     a) pointer to a character array which contains the
        filename
     b) filename whithin double quotes
     c) can be anyone of the above
     d) none
```

```
92. x = malloc (y).  Which of the following statements is
correct.

      a) x is the size of the memory allocated
      b) y points to the memory allocated
      c) x points to the memory allocated
      d) none of the above
```

```
93. which is the valid declaration?

     a) #typedef struct { int i;}int
     b) typedef struct in {int i;};
     c) #typedef struct int {int i;};
     d) typedef struct {int i;} in;
```

```
94. union {
            int no;
            char ch;
         }u;

      What is the output?
         u.ch = '2';
         u.no = 0;
         printf ("%d", u.ch);
     a) 2
     b) 0
     c) null character
     d) none

95. Which of these are valid declarations?
    i) union {       ii) union u_tag   {
       int i;           int i;
       int j;           int j;
       };            };

    iii) union {     iv) union {
       int i;           int i;
       int j;           int j;
       FILE k; }u;
       };

     a) all correct
     b) i, ii, iv
     c) ii & iv


96.  p and q are pointers to the same type of data items.
    Which of these are valid?
      i) *(p+q)
     ii) *(p-q)
    iii) *p - *q

     a)all
     b)ii & iii
     c)iii is valid sometimes
```

```
97.  which are valid?
      i) pointers can be added
     ii) pointers can be subtracted
    iii) integers can be added to pointers

     a) all correct
     b) only i and ii
     c) only ii and iii
     d) None

98.  int *i;
     float *f;
     char *c;
     which are the valid castings?

     a) (int *) &c
     b) (float *) &c
     c) (char *) &i

99. int i = 20;
    printf ("%x", i);
    what is the output?


     a) x14
     b) 14
     c) 20
     d) none of the above
```

100.

```
main ()
{
       char *name = "name";
       change (name);
       printf ("%s", name);
}
change (char *name)
{
     char *nm = "newname";
     name = nm;
}
    what is the output?
```

a) name
b) newname
c) name = nm not valid
d) function call invalid

101.

```
 char name[] = {'n', 'a', 'm', 'e'}
 printf ("name = \n%s", name);
```

a)name =
name
b) name =
followed by funk characters
c) name = \nname
d) none

102.

```
int a = 0, b = 2;
if (a = 0)
   b = 0;
else
   b *= 10;
```

what is the value of b?
a) 0
b) 20
c) 2
d) none

103. int x = 2, y = 2, z = 1;
what is the value of x after the following statmements?

```
if (x = y%2)
    z = crap
else
    crap
```

a) 0
b) 2
c) 1
d) none

104. output?

```
initially n = -24;
printd (int n)
{
       if (n < 0)
      {
            printf ("-");
            n = -n;
       }
       if (n % 10)
          printf ("%d", n);
       else
          printf ("%d", n/10);

       printf ("%d", n);
 }
```

a) -24
b) 24
c) -2424
d) -224

105.

```
#define max(a,b) (a>b?b:a)
#define squre(x) x*x

int i = 2, j = 3, k = 1;
printf ("%d %d", max(i,j), squre(k));
```

output?

a) 32
b) 21
c) 31
d) 13

```
106.  struct adr
      {
          char *name;
          char *city;
          int zip;
      };
      struct adr *adradr;
      which are valid references?

     a) adr->name   X
     b) adradr->name
     c) adr.zip   X
     d) adradr.zip

107. main (x, y)
    int x, char *y[];
    {
       printf ("%d %s", x, y[1]);
    }
    output when invoked as
       prog arg1

     a) 1 prog
     b) 1 arg1
     c) 2 prog
     d) 2 arg1

108. extern int s;
    int t;
    static int u;
    main ()
    {
    }
    which of s, t and u are availeble to a function present
in another
    file
     a) only s
     b) s & t
     c) s, t, u
     d) none
```

```
109. main ()
     {
     }
     int a;
     f1(){}
     f2(){}
```

which of the functions is int a available for?

a) all of them
b) only f2
c) only f1
d) f1 and f2 only

```
110.
     int a = 'a', d = 'd';
     char b = "b", c = "cr";

     main ()
     {
        mixup (a, b, &c);
     }
     mixup (int p1, char *p2, char **p3)
     {
        int *temp;
        ....doesnt matter.....
     }
```

What is the value of b after mixup?

a)a
b)b
c)c
d)none of the above

111.
```
int  main ()
     {
          char s[] = "T.C.S", *A;
            print(s);
     }

     print (char *p)
     {
           while (*p != '\0')
           {
                 if (*p != ".")
                         printf ("%s", *p);
                    p++;
            }
         }
```

output?

a) T.C.S
b) TCS
c) Runtime Error
d) none of the above

112.

```
main ()
{
      int ones, twos, threes, others;
      int c;

      ones = twos = threes = others = 0;

      while ((c = getchar ()) != EOF)
      {
           switch (c)
           {
              case '1': ++ones;
              case '2': ++twos;
              case '3': ++threes;
                           break;
              default: ++others;
                          break;
            }
      }
      printf ("%d %d", ones, others);
   }
```

if the input is "1a1b1c" what is the output?

a) 13
b) 33
c) 31

113.

```
int f(int *a)
{
     int b=5;
     a=&b;
}
main()
{
    int i;
    printf("\n %d",i);
    f(&i);
    printf("\n %d",i);
 }
```

what's the output?

a)10,5
2)10,10
c)5,5
d)none

114.

```
main()
{
     int i;
     fork();
     fork();
     fork();
     printf("----");
}
```

how many times the printf will be executed .

a) 3
b) 6
c) 5
d) 8

115.

```
void f(int i)
{
    int j;
    for (j=0;j<16;j++)
    {
         if (i & (0x8000>>j))
              printf("1");
          else
              printf("0");
    }
}
```

what's the purpose of the program

a) its output is hex representation of i
b) bcd
c) binary
d) decimal

116 .
```
#define f(a,b) a+b
#define g(a,b) a*b
main()
{
    int m;
    m=2*f(3,g(4,5));
    printf("\n m is %d",m);
}
```

what's the value of m

a) 70
b) 50
c) 26
d) 69

117.
```
main()
{
    char a[10];
    strcpy(a,"\0");
    if (a==NULL)
         printf("\a is null");
    else
         printf("\n a is not null");}
}
```

what happens with it ?

a) compile time error.
b) run-time error
c) a is null
d) a is not null.

118.
```
char a[5]="hello"
```

a) in array we can't do the operation .
b) size of a is too large
c) size of a is too small
d) nothing wrong with it .

119. local variables can be store by compiler

a) in register or heap
b) in register or stack
c) in stack or heap
d) global memory.

120. global variable conflicts due to multiple file occuranceis resolved during

a) compile-time
b) run-time
c) link-time
d) load-time

121.Two program is given of factorial. one with recursion and one without recursion question was which program won't run for very big no. input because of stack overfow

i. with recursion
ii. without recursion
a) i only
b) ii only
c) i& ii both .
d) none

122.

```
struct a
{
    int a;
    char b;
    int c;
}
union b
{
    char a;
    int b;
     int c;
 };
    which is correct .
```

a) size of a is always diff. form size of b.
b) size of a is always same form size of b.
c) we can't say anything because of not-homogeneous (not inorder)
d)size of a can be same if ...

123.

```
typedef struct{
     char *data;
     nodeptr next;
} * nodeptr ;
```

What does nodeptr stand for?

124. What does. int *x[](); means ?

125.

```
struct list   {
     int x;
     struct list *next;
 }*head;
 struct head.x =100
```

Is the above assignment to pointer is correct or wrong ?

126. What is the output of the following ?

```
int i;
i = 1;
i = i+2*i++;
printf(%d,i);
```

127. What is the error in the following program

```
FILE *fp1,*fp2;
      fp1=fopen("one","w")
      fp2=fopen("one","w")
      fputc('A',fp1)
      fputc('B',fp2)
      fclose(fp1)
      fclose(fp2)}
```

What are the output(s) for the following ?

128.

```
#include<malloc.h>
char *f()
{
     char *s=malloc(8);
     strcpy(s,"goodbye")
}
int main()
{
     char *f();
     printf("%c",*f()='A');
}
```

129.

```
#define MAN(x,y) (x)>(y)?(x):(y)
{
     int i=10;j=5;k=0;
     k= MAX(i++,++j)
     printf(%d %d %d %d,i,j,k);
}
```

130.

```
a = 10;b = 5; c = 3;d = 3;

if(a<b)&&(c=d++)
     printf(%d %d %d %d a,b,c,d)
else
     printf("%d %d %d %d a,b,c,d);
```

131.

```
#include<stdarg.h>
show(int t,va_list ptr1)
{
     int a,x,i;
     a=va_arg(ptr1,int)
     printf("\n %d",a)
}

display (char)
{
     int x;
     listptr;
     va_star(otr,s);
     n=va_arg(ptr,int);
     show(x,ptr);
}
int main()
{
     display("hello",4,12,13,14,44);
}
```

132.

```
int main()
{
     int i = 10;
     printf(" %d %d %d \n", ++i, i++, ++i);
}
```

133.

```
#include<stdio.h>
main()
{
     int *p, *c, i;
     i = 5;
     p = (int*) (malloc(sizeof(i)));

     printf("\n%d",*p);

     *p = 10;
     printf("\n%d %d",i,*p);

     c = (int*) calloc(2);
     printf("\n%d\n",*c);
}
```

134.
```
#define MAX(x,y) (x) >(y)?(x):(y)

int main()
{
     int I = 10,j = 5,k = 0;
     k = MAX(i++,++j);
     printf("%d..%d..%d",i,j,k);
}
```

135.
```
#include <stdio.h>

int  main()
{
     enum _tag{ left=10, right, front=100, back};

     printf("left is %d, right is %d, front is %d,
back is %d",left,right,front,back);
}
```

136.
```
int main()
{
     int a = 10,b = 20;
     a>=5?b=100:b=200;

     printf("%d\n",b);
}
```

137.
```
#include<stdio.h>
int main()
{
     char s[] = "Bouquets and Brickbats";
     printf("\n%c, ",*(&s[2]));
     printf("%s, ",s+5);
     printf("\n%s",s);
     printf("\n%c",*(s+2));
}
```

138.

```
int  main()
{
     struct s1
     {
          char *str;
          struct s1 *ptr;
     };

     static struct s1 arr[] = { {"Hyderabad",arr+1},
                                {"Bangalore",arr+2},
                                {"Delhi",arr}
                              };
     struct s1 *p[3];
     int i;
     for(i = 0; i<=2; i++)
          p[i] = arr[i].ptr;

     printf("%s\n",(*p)->str);
     printf("%s\n",(++*p)->str);
     printf("%s\n",((*p)++)->str);
}
```

139.

```
int main()
{
     char *p = "hello world!";
     p[0] = 'H';
     printf("%s",p);
}
```

140. You have to write a program where that implements a cirlular linklist. Each node will store a char*. The node declaration will have how many entries?

a) 2
b) 3
c) 4
d) 5

Part II QUESTIONS

1. What is the value of the statement (3^6) + (a^a)?

a) 3
b) 5
c) 6
d) a+18
e) None

2. Which is the output produced by the following Program

```
main()
{
            int n=2;
            printf("%d %d\n", ++n, n*n);
}
```

a) 3,6
b) 3,4
c) 2,4
d) cannot determine

3. What is the output of the following program?

```
int x       = 0x65;
main()
{
            char x;
            printf("%d\n",x)
}
```

a) compilation error
b) 'A'
c) 65
d) undefined

4. What is the output of the following program

```
main()
{
            int a=10;
            int b=6;

            if(a=3)
                  b++;
            printf("%d %d\n",a,b++);
}
```

a) 10,6
b)10,7
c) 3,6
d) 3,7
e) none

5. What can be said of the following program?

```
main()
{
            enum Months {JAN =1,FEB,MAR,APR};
            Months X = JAN;
            if(X==1)
                  printf("Jan is the first month");
}
```

a) Does not print anything
b) Prints : Jan is the first month
c) Generates compilation error
d) Results in runtime error

6. What is the output of the following program?

```
main()
{
            char *src = "Hello World";
            char dst[100];
            strcpy(src,dst);
            printf("%s",dst);
}
strcpy(char *dst,char *src)
{
            while(*src) *dst++ = *src++;
}
```

a) "Hello World"
b)"Hello"
c)"World"
d) runtime error
e)undenfined

7. What is the output of the following program?

```
main()
{
            int l=6;
            switch(l)
            {
                  default : l+=2;
                  case 4: l=4;
                  case 5: l++;
                        break;
            }
            printf("%d",l);
}
```

a)8
b)6
c)5
d)4
e)none

8. What is the output of the following program?

```
main()
{
            int x=20;
            int y=10;
            swap(x,y);
            printf("%d %d",y,x+2);
}

swap(int x,int y)
{
            int temp;
            temp =x;
            x=y;
            y=temp;
}
```

a)10,20
b) 20,12
c) 22,10
d)10,22
e)none

9. What is the output of the following problem ?

```
#define INC(X) X++

main()
{
            int X=4;
            printf("%d",INC(X++));
}
```

a)4
b)5
c)6
d)compilation error
e) runtime error

10. What can be said of the following

```
struct Node {
            char *word;
            int count;
            struct Node left;
            struct Node right;
}
```

a) Incorrect definition
b) structures cannot refer to other structure
c) Structures can refer to themselves. Hence the statement is OK
d) Structures can refer to maximum of one other structure

11. What is the size of the following union. Assume that the size of int =2, size of float =4 and

size of char =1.

```
Union Tag{
            int a;
            flaot b;
            char c;
};
```

a) 2
b) 4
c) 1
d) 7

12. What is the output of the following program?

```
main()
{
            char s[]="Hello,.world";
            printf(%15.10s",s);
}
```

a) Hello,.World...
b) Hello,.Wor
c) Hello,.Wor....
d) None of the above

13. Consider the following function written in c:

```
#define NULL 0

char *
index(sp,c)
register char *sp,c;
{
            do {
                  if(*sp == c)
                  return (sp);
            } while (*sp++);
            return NULL;
}
```

The first argument sp, is a pointer to a C string. The second argument, c, is a character. This function searches for the character c, in the string. If it is found a pointer to that location is returned else NULL is returned. This function works

a) Always
b) Always, but fails when the first byte contains the character c
c) works when c is a non NULL character only
d) Works only when the character c is found in the string

14. What is printed when this program is executed

```
main()
{
            printf ("%d\n",f(7));
}
f(int x)
{
            if (x<= 4)
            return x;
            return f(--x);
}
```

a) 4
b) 5
c) 6
d) 7

15. Which of the following is the correct code for strcpy, that is used to copy the contents from src to dest?

a)
```
strcpy (char *dst,char *src)
{
        while (*src)
              *dst++ = *src++;
}
```
b)
```
strcpy (char *dst,char *src)
{
        while(*dst++ = *src++)
}
```
c)
```
strcpy (char *dst,char *src)
{
        while(*src)
        {
              *dst = *src;
              dst++; src++;
        }
}
```
d)
```
strcpy(char *dst, char *src)
{
        while(*++dst = *++src);
}
```

16. On a machine where pointers are 4 bytes long, what happens when the following code is executed.

```
main()
{
        int x=0,*p=0;
        x++; p++;
        printf ("%d and %d\n",x,p);
}
```

a) 1 and 1 is printed
b) 1 and 4 is printed
c) 4 and 4 is printed
d) causes an exception

17. Consider the following program

```
main()
{
            int i=20,*j=&i;
            f1(j);
            *j+=10;
            f2(j);
            printf("%d and %d",i,*j);
}

f1(k)
int *k;
{
            *k +=15;
}

f2(x)
int *x;
{
            int m=*x,*n=&m;
            *n += 10;
}
```

The values printed by the program will be

a) 20 and 55
b) 20 and 45
c) 45 and 45
d) 45 and 55
e) 35 and 35

18. What is printed when the following program is compiled and executed?

```
int
func (int x)
{
            if (x<=0)
                  return(1);
            return func(x -1) +x;
}

main()
{
            printf("%d\n",func(5));
}
```

a) 12
b) 16
c) 15
d) 11

19. Consider the following of c code in two files which will be linked together and executed .

a.c

```
int i;

main()
{
            i = 30;
            f1();
            printf("%d\n",i)
}
```

b.c

```
static int f1()
{
            i+=10;
}
```

20. which of the following is true ?

a) a.c will fail in compilation phase because f1() is not declared
b) b.c will fail in compilation because the variable is not declared
c) will print 30
d) will print 40
e) a & b

21. Consider the following program

```
void funca (int *k)
{
            *k += 20
}

void funcb (int *x)
{
            int m=*x,*n = &m;
            *n+=10;
}

main()
{
            int var = 25,*varp=&var;
            funca(varp);
            *varp += 10;
            funcb(varp);
            printf ("%d and %d\n",var,*varp);
}
```

The values printed when the above prg is complied and executed are:

a) 20 and 55
b) 20 and 45
c) 45 and 55
d) 55 and 55
e) 35 and 35

22. Given the following statement

```
enum day = {
              jan   =     1,
              feb   =     4,
              april,
              may
};
```

What is the value of may?

a) 4
b) 5
c) 6
d) 11
e) None

23. Find the output for the following C program

```
main()
{
     int  x,j,k;
     j=k)=6;
     x=2;
     x=j*k;
     printf("%d", x);

}
```

23. Find the output for the following C program

```
int  i=20,k=0;
int main()
{
     for(j=1;  j<i; j=1+4*(i/j))
{
     k+=j<10?4:3;
 }
 printf("%d", k);
  }
```

24. Find the output for the following C program

```
 int  i=10;
main()
{
 int  i=20,n;
for(n=0;n<=i;)
{
 int  i=10;
i++;
 }
printf("%d", i);
 }
```

25. Find the output for the following C program

```
 int  Y=10;
if(Y++>9  &&   Y++!=10   &&   Y++>10)
 printf("%d",  Y);
else
     printf("%d",   Y);
}
```

26. Find the output for the following C program

```
 f=(x>y)?x:y
 a)f  points    to   max   of  x    and  y
b)f  points    to   min  of   x    and  y
c)error

define f(x,y) x##y
 int main()
 {
 printf("%s",f("This","This is"));
 }
```

a) This
b)is
c)ThisThis is
d) None

27.
```
#define INC(x) x++
 int main()
 {
  int a = 1;
  printf("%d",INC(a++));
 }
```
a) 1
b) 2
c) 3
d) Program won't compile

28. Assume the size of the int to be 4

```
#define NULL 0
int main()
{
int i=0,*p = NULL;
i++;p++;
printf("%d %d",i,p);
}
```
a) 1 4
b) 4 1
c) 4 4
d) 1 1

29. In ANSI C the output of the following C code segment is
```
i = 5;
a[5] = 5;
a[6] = 11;
a[7] = 12;
a[i] = i++;
printf("%d %d",a[5],a[6]);
```
a) 6 11
b) 5 11
c) 5 6
d) None

30. (3^2) + (a^a) is equal to

a) 0
b) 1
c) 3
d) Data Insufficient

31.

```
int main()
{
 int x=8;
 x = x > 10 ? x<<2 : x>7 ?     x>>2 : x<<3;
 printf("%d",x);
}
```

a) 1
b) 2
c) 4
d) None

32. The value of a and b after assignment are

```
int a,b;
a = (10,15);
b = 10,15;
```

a) 10 15
b) 15 10
c) 10 10
d) 15 15

33. In C arguments could be passed only
a) by reference
b) by value
c) by name
d) address & value

34.

```
typedef struct
 {
 char * str;
 NODEF next;
 } * NODEF;
```

a) works only in C
b) works only in C++
c) works in C & C++
d) Won't compile in both C & C++

35.

```
#define NULL 0
char * f(str,c)
register char * str,c;
{
while(*str)
     if(*str++ == c) return str;
return NULL;
}
```

a) the above function will always work
b) won't work for c = NULL
c) won't work if c is not found
d) won't work if c is the first character

36.

```
int main()
 {
int x = 10, y = 6, z = 4;
x=y==z;
printf("%d",x);
 }
```

a) 0
b) 1
c) 6
d) compiler Error
e) None of the above

37. static functions in C could be called only

a) after decleration
b) after defination
c) after decleration and before defination
d) anywhere

38.

```
void f(int *x,int y)
{
int temp;
temp = *x;
*x = y;
y = temp;
}

void f1(int *x)
{
int *a,b;
b = *x;
a = &b;
*a += 10;
 }
 int main()
 {
int a =10,b=5;
int *c;
c = &a;
f(c,b);
f1(c);
printf("%d %d",a,b);
 }
```

a) 5 5
b)10 5
c)15 10
d)None

39.

```
 void f(int *x)
 {
*x += 10;
 }
 void f1(int *y)
 {
int temp,*pt;
temp = *y;
pt = &temp;
*pt += 15;
 }
 int main()
 {
int x = 10;
f(&x);
f1(&x);
printf("%d",x);
 }
```

a) 35
b) 25
c) 20
d) 10

40. expression in switch statement can not acc ept the data type
a) int
b) char
c) short
d) float

41. Which of the following is not a basic data type
a) char
b) char *
c) float
d) double

42.

```
f(int a,int b)
{
      if(a<b) return &a;
    return &b;
}
int main()
{
 int a=10,b=5,*c;
  c = f(b,a);
  printf("%d",*c);
}
```

a) compile error
b) 10
c) 5
d) Junk

43. Which one could be a substitute for strcpy()

```
a) while(*str++ = *dtr++);
b) while(*++str)*str = *++dtr;
c) while(*++str = *++dtr);
d) None
```

44.

```
main()
{
          printf("%d",printf("HelloSoft"));
}
```

Output?

45.

```
case 1:                          case 2:
  typedef struct {                  typedef struct {
        int a;                              char p;
        char b;                              int q;
        int d;                              char k;
        char e;                              int l;
  }A;                              }A;
```

Assuming 'packing' is not enabled, which case will give an error of Sizeof(A) less.

46.

```
main()
{
        int i=3;
    printf("%d %d %d",i++,i,++i);
    }
```

47.

```
main()
{
         int i = 10;
     int j,k = 5;
     int a[10];
     for(j=0;j<10;j++)
              a[j]=(i+k)+(i*k);
    }
    Optimize the above code.
```

48.

```
main()
{
        int *p=0x100;
    int *q=0x100;
    int k=p*q;
        printf("%x\n",k);
}
Output ?
```

49.

```
char* foo()
{
        char str[4];
    strcpy(str,"HelloSoft");
        return str;
}
Output?
```

50.

```
int a[10][20][30][40];
int *p;
How to access an element of a using p?
```

51.

```
int main()
{
          int i=10;
     if(i>20)
            if(i==10)
                  print("Hi");
           else
             printf("Bye");
      } Output ?
```

52.

```
int i =10;
main()
{
int i =20,n;
for(n=0;n<=i;)
{
int i=10;
i++;
}
printf("%d", i);
   }
```

53. Which of the following about the following two declaration is true

i) int *F()
ii) int (*F)()

Choice :
a) Both are identical
b) The first is a correct declaration and the second is wrong
c) The first declaraion is a function returning a pointer to an integer and the second is a pointer to function returning int
d) Both are different ways of declarin pointer to a function

54. What are the values printed by the following program?

```
#define dprint(expr) printf(#expr "=%d\n",expr)

int main()
{
int x=7;
int y=3;
dprintf(x/y);
}
```

Choice:
a) #2 = 2
b) expr=2
c) x/y=2
d) none

55. Which of the following is true of the following program

```
main()
{
char *c;
int *p;
c =(char *)malloc(100);
ip=(int *)c;
free(ip);
}
```

Is the above code correct?

56. What's the output of the following.

```
main()
{
int i;
char *p;
i=0X89;
p=(char *)i;
p++;
printf("%x\n",p);
}
```

57. Which of the following is not a ANSI C language keyword?
a) return
b) auto
c) _Bool
d) function

58. When an array is passed as parameter to a function, which of the following statement is correct choice:

a) The function can change values in the original array

b) In C parameters are passed by value. The funciton cannot change the original value in the array

c) It results in compilation error when the function tries to access the elements in the array

d) Results in a run time error when the funtion tries to access the elements in the array.

59. What is the value assigned to the variable X if b is 7 ?

```
X = b>8 ? b <<3 : b>4 ? b>>1:b;
```

a) 7
b) 28
c) 3
d) 14
e) None

60.
```
int *data[10];
```
what does the variable data denotes?

61.
```
int main()
{
   int a[]={10,20,30,40,50};
   (void)fun(a+1);
}
int fun(int *p)
{
for(int i=1;i<=3;i++)
printf("%d",*(p+i));
}
```
If this program is compiled as per **ANSI-C99**, what's the Output?

62.
```
enum day {
saturday,
     sunday=3,
      monday,
     tuesday
  };
  value of saturday,tuesday.
```

63.
```
enum day {
              saturday,
              sunday=-1,
              monday,
              tuesday
    };

    int x=monday;
    value of x?
```

64.
```
     #define ADD(X,Y) X+Y
         main()
     {
     #undef ADD(X,Y)
     fun();
     }
     fun()
     {
     int y=ADD(3,2);
     printf("%d",y);
     }

     o/p?
```

65.
```
     #define ADD(X,Y) X+Y
        main()
        {
          #undef ADD;
      fun();
        }
        fun()
        {
          #if !defined(ADD)
           define ADD(X+Y) X*Y
          int y=ADD(3,2);
          printf("%d",y);
        }

       o/p?
```

66.

```
main( )
     {
        int x,y, z;
        x=2;
        y=5;
        z= x+++y;
        printf("%d %d %d", x, y z);
}
```

a)3 5 7
b)option 2
c)option 3
d)option 4

67.

```
# define swap(a,b)  temp=a; a=b; b=temp;
main( )
{
int i, j, temp;
i=5;
j=10;
temp=0;
if( i > j)
swap( i, j );
printf( "%d %d %d", i, j, temp);
}
```

68. Which is a good way of representing varaibles in recursion
a) local variables
b) static varaibles
c) global variables

69. Given the following c program

```
func()
{
static int i = 10;
printf("%d",i);
i++;
}
main()
{
     func();
     func();
}
```

What is the value of i printed at last?

Part I ANSWERS

1. (nil)
2. 1
3. 1 2 3
4. Define all of the above
5. 1 2 4 4 4 4
6. 8 8
7. *, --, ++
8. Sunil Gavaskar 150.0
9. 11
10. Compilation error.
11. It goes up by the size of a pointer
12. Garbage
13. free(nPtr->firstname); free(nPtr->lastname); free(nPtr);
14. void swap(float **, float **);
15. 1 2 4
16. Keep the faith Garbage
17. 1 2 3
18. 0x0000
19. 4 4 4
20. 2
21. 2
22. 1
23. 3
24. It's a compound literal. num is pointer to the compound literal of type integer array.

    *p = 1

    *q = 5

    i = 10

(q –p) = 1

25. Array of 10 pointers to function which take two pointers to char as argument returning pointer to int.
26. Sizeof(a)/sizeof(char *) = 16/4 = 4.
27. 2 3 (Pointers in swap functions are swapped, not the values!)
28. Ans. %s is string is string
29. Runtime error
30. UINT_MAX
31. 100 200
32. 8
33. 4 4
34. array[0]='Y'
    array[1]='E'
    array[2]='S'
    array[3]= '\0'
35. Need not return any value.
36. 7
37. They are global.
38. 15
39. b
40. 1
41. 2
42. *(*ab+5)
43. Stack
44. return(1, 2, 3);
45. const char *
46. 4
47. *(*(a+2)+4)
48. (b)

49. Compiler Error
50. An empty String
51. 57 94
52. 12 1 1
53. 11 16
54. Ony one time "Ramco Systems" will be printed
55. 45
56. 43.33
57. Compiler Error
58. Error: cast to union type from type not present in union
59. A new line is printed
60. 5
61. Four is Z
62. 5 20 5
63. 1000 6.33
64. 4.50 4.57 13.57
65. Floating point exception
66. Numbers are -25 25
67. invalid lvalue in assignment
68. Sum = 39
69. 6
70. 5 5 5 5 5
71. 100 99
72. (100,C,-5233182629565562780)
73. Can't modify read-only location
74. i = Garbage
75. 3
76. none
77. Segmentation fault
78. "file1.h only".

79. Ans : 8. if integer takes 2 byte.

80. Ans : Compilation error. Since you can't assign a String Constant to Char variable.
81. Compiler Error: invalid lvalue assignment
82. return ((a > b) ? a : b);
83. b)
84. c)
85. a)
86. a)
87. c
88. b
89. Warning
90. b
91. c
92. c
93. d
94. b
95. a
96. b
97. c
98. All
99. 14
100. a
101. b
102. b
103. a
104. c
105. b
106. ii
107. 2 arg1

108. b
109. a
110. d
111. c
112. a
113. d
114. d
115. c
116. c
117. d
118. c
119. b
120. c
121. a
122. a
123. Error inside the structure
124. x is array of function returning pointer to int (Not possible to implement)
125. Wrong
126. 4
127. Ans. no error. But It will over writes on same file.
128. A
129. 10 5 0
130. 10 5 3 3
131. 12
132. 13 11 11
133. Compiler Error
134. 12..6..11
135. left is 10, right is 11, front is 100, back is 101

136. Compiler Error: invalid lvalue in assignment
137. u, ets and Brickbats,
     Bouquets and Brickbats
     u
138. Bangalore
     Delhi
     Delhi
139. Segmentation fault
140. 2

Part II ANSWERS

1. b
2. b
3. d
4. d
5. b
6. d
7. c
8. d
9. d
10. c
11. b
12. c
13. a
14. a
15. b
16. b
17. b
18. c
19. d
20. c
21. c
22. invalid lvalue assignment
23. k=4
24. i=20
25. 13
26. a)
27. 1
28. c
29. d

30. b
31. b
32. b
33. d
34. ans : a
35. a
36. d
37. b
38. a
39. a
40. d
41. b
42. a
43. ans : c
44. HellooSoft 9
45. Case 1
46. 4 4 4
47.

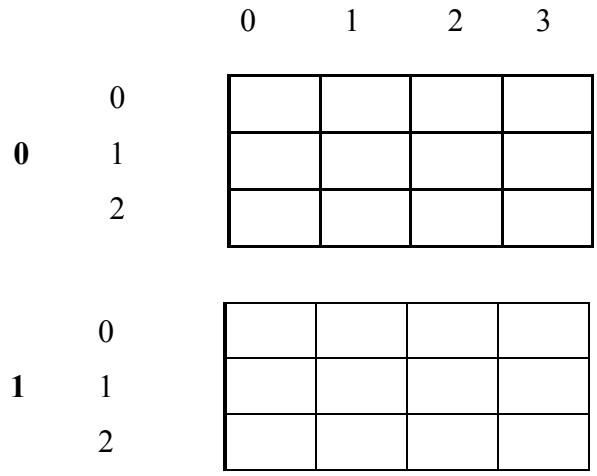
```
main() {
      int i=10;
     int j,k=5;
    int prod = i * k, sum = i + k;
      int a[10];
```

```
            for(j=0;j<10;j++)
        a[j]=sum+prod;
    }
```

48. Warning

49. Warning : the function returns the address of local variable.

50. int a[10][20][30][40], *p = a[0][0][0];and *p = 100; places the value 100 into the 0^{th} element of 0^{th} 1D array of 0^{th} 2D array of 0^{th} 3D array.For eg. **int** threeD[2][3][4] looks like as below:



Observations:

- **threeD** is the synonym for **&threeD[0]** (Address of 0^{th} 2D array)
- **threeD[0]** is the synonym for **&threeD[0][0]** (Address of 0^{th} 1D array of 0^{th} 2D array)
- **threeD[0][0]** is the synonym for **&threeD[0][0][0]** (Address of 0^{th} element of 0^{th} 1D array of 0^{th} 2D array)

51. No output
52. Infinite loop
53. c
54. d
55. The code functions properly releasing all the memory allocated
56. 0X8A
57. d
58. a
59. c
60. **data** is an array of 10 pointer to int
61. 30 40 50
62. 0 5
63. 0
64. Linker Error: undefined reference to ADD in 'fun'
65. C Preprocessor Error : '+' may not appear in macro argument list
66. a
67. 10 0 0
68. a
69. 11