

## DEPARTMENT OF ECE

### C - PROGRAMMING

1. What is the output of the following program?

```
main()
{
extern inti;
i=20;
printf("%d",i);
}
```

- A. 20
- B. Compiler error
- C. Linker Error : Undefined symbol '\_i'
- D. None of above

2. What is the output of the following program?

```
main()
{
printf("%x",-1<<4);
}
```

- A. fff0
- B. 1
- C. Linker Error
- D. fff1

3. What is the output of the following program?

```
main()
{
int c=- -2;
printf("c=%d",c);}
}
```

- A. c= -1
- B. c= 2
- C. c= -2
- D. c= 1

4. What is the output of the following program?

```
main()
{
printf("\nab");
printf("\bsi");
printf("\rha");
}
```

- A. hai
- B. hasia
- C. nah
- D. abhasi

**5.What is the output of the following program?**

```
main()
{
static int var = 5;
printf("%d ",var--);
if(var)
main();
}
```

- A.5
- B. 5 4 3 2 1
- C. Linker error
- D.Compiler Error

**6.What is the output of the following program?**

```
#define int char
main()
{
int i=65;
printf("sizeof(i)=%d",sizeof(i));
}
```

- A.65
- B. 1
- C.2
- D. Compiler Error

**7.What is the output of the following program?**

```
#define a 10
main()
{
#define a 50
printf("%d",a);
}
```

- A.50
- B. 10
- C. 0
- D.Link Error

**8. What is the output of the following program?**

```
main()
{
int i=400,j=300;
printf("%d..%d");
}
```

- A.400..300
- B. 400
- C. Garbage Value
- D.300..400

**9. What is the output of this C code?**

```
main()
{
int b = 5 + 7 * 4 - 9 * (3, 2);
printf("%d", b);
}
```

- A. 6
- B. 15
- C. 13
- D. 2

**10. What is the output of this C code?**

```
main()
{
int h = 8;
int b = (h++, h++);
printf("%d%d\n", b, h);
}
```

- A. 10 10
- B. 10 9
- C. 9 10
- D. 8 10

**11. Find the output**

```
main()
{
inti=-1,j=-1,k=0,l=2,m;
m=i++&&j++&&k++||l++;
printf("%d %d %d %d %d",i,j,k,l,m);
}
```

- A. -1 ,-1 ,0 ,2 ,3
- B. 0 ,0, 1, 3, 1
- C. 0 ,0, 1, 3, 3
- D. -1 ,-1 ,0 ,2 ,1

**12. What will be the value of not?**

```
main()
{
char not=10;
not=!not>14;
printf("%d",not);
}
```

- A.14
- B.10
- C.Error
- D.0

**13. Print the output**

```
main()
{
int i=5,j=6,z;
printf("%d",i+++j);
}
```

- A.11
- B.12
- C.13
- D.i+++j

**14. What will be output if you will compile and execute the following c code?**

```
#define x 5+2
void main()
{
int i;
i=x*x*x;
printf("%d",i);
}
```

- A.343
- B.27
- C.133
- D.Compiler error

**15. What will be output if you will compile and execute the following c code?**

```
main()
{
inti=4,x;
x=++i+ ++i+ ++i;
printf("%d",x);
}
```

- A.21
- B.18
- C.12
- D.Compiler error

**16. Consider the following program segment**

```
i=6720, j=4;
while((i%j)==0)
{
i=i/j;
j=j+1;
}
```

On termination j will have the value

- A. 9
- B. 5
- C. 1680

17. Which of the following statements is correct in the C program given below?

```
main()
{
int x=10; y=100%90;
for(i=1;i<=10;i++);
if(x!=y);
printf("x=%d y=%d\n", x,y);
}
```

- A. printf function calls 10 times
- B. The program will produce output x=10 y=10
- C. The ; after the if(x!=y) will not produce an error
- D. Both (b) and (c)

18. The following program fragment

```
for(i=1;i<5;i+=3)
{
}
```

printf ("%d",i);

Results in

- A. A syntax error
- B. An execution error
- C. Printing of 7
- D. Printing of 16

19. What is the output of the following program?

```
main()
{
int x,y,z;
x=2;y=1;z=1;
if(x>y+z)
printf("hello");
else if(x<y+z);
printf("Hi");
else
printf("Hey"); }
```

- A. Hello
- B. Hi
- C. Hey
- D. None of these

20. Trace the output

```
main()
{
int x=10,y=10,z=5,i;
i=x<y<z;
printf("\n%d",i);
}
```

- A.1
- B.0
- C.Error
- D.5

**21. consider the following code**

```
int x,y=2,z,a;  
x=(y*=2)+(z=a=y);  
printf("%d",x);
```

- A.Prints 8
- B.Prints 6
- C.Is syntactically wrong
- D.None of these

**22. Find out the error in following program**

```
main()  
{  
inti=1,j=2;  
switch(i)  
{  
case 1: printf("GOOD");  
break;  
case j: printf("BAD");  
break;  
} }  
}
```

- A. Runtime error
- B. Compilation error
- C. Warning
- D. No error

**23.Find error or output in the following program**

```
main()  
{  
inti=0;  
for(;i<=2;)  
printf(" %d",++i);  
}
```

- A. 0 1 2 3
- B. 0 1 2
- C. 1 2 3
- D. Compilation error

**24. Point out the error in the program**

```
f(int a, int b)  
{  
int a;  
a = 20;  
return a; }
```

- A. Missing parenthesis in return statement
- B. The function should be defined as `int f(int a, int b)`
- C. Redeclaration of a
- D. None of above

**25. Which of the following statements are correct about the below program?**

```
main()
{
    inti= 0;
    i++;
    if(i<= 5)
    {
        printf("GATE-2014\n");
        exit(0);
        main();
    }
}
```

- A. The program prints ' GATE-2014' 5 times
- B. The program prints ' GATE-2014' one time
- C. The call to `main()` after `exit()` doesn't materialize.
- D. The compiler reports an error since `main()` cannot call itself.

**26. What would be the output of the following program?**

```
main()
{ int i=4;
switch(i)
{ default:
printf("\n A mouse is an elephant built by the Japanese");
case 1:
printf(" Breeding rabbits is a hair raising experience");
break;
case 2:
printf("\n Friction is a drag");
break;
case 3:
printf("\n If practice make perfect, then nobody's perfect");
} }
```

- A. Print default statement
- B. Runtime Error
- C. Print default and case1 statement
- D. Compiler Error

**27. What will be output of following c code?**

```
main()
{
int i=2,j=2;
while(i+1?--i;j++)
printf("%d",i);
}
```

- A. 0
- B. 1
- C. 2
- D. 3

**28. Find out the value of i,j?**

```
main()
{
inti,j;
i=j=2;
while(--i&&j++)
printf("%d %d",i,j);
}
```

- A.1,2
- B.2,2
- C.1,3
- D.0,4

**29. Assume the following C variable declaration `int* A [10], B[10][10]`; of the following expressions**

- I) `A[2]`
- II) `A[2][3]`
- III) `B[1]`
- IV) `B[2][3]`

which will not give compile-time errors if used as left hand sides of assignment statements in a C program?

- A. I, II, and IV only
- B. II, III, and IV only
- C. II and IV only
- D. IV only

**30. The following program segment is intended to find the index of the first negative integer in `arr [0] ... arr [ N-1]`, where `arr` is an array of `N` integers.**

```
int i = 0;
while (arr [i] >= 0)
{
i++;
}
```

`location = i ;`

This segment will work as intended

- A. Always
- B. Never
- C. Whenever `arr` contains at least one negative integer
- D. Whenever `arr` contains at least one nonnegative integer
- E. Whenever `arr` contains no negative integers

**31. Find the output of the following program**

```
void main()
{
```



```

char s[ ]="man";
int i;
for(i=0;s[ i ];i++)
printf("\t%c%c%c%c",s[ i ],*(s+i),*(i+s),i[s]);
}

```

- A. error
- B. man man man man
- C. mmmm aaaa nnnn
- D. ammm naaa nnn

**32. Find the output of the program**

```

main()
{
char string[]="Hello World";
display(string);
}
void display(char *string)
{
printf("%s",string);
}

```

- A. Hello World
- B. Compiler Error : Type mismatch in redeclaration of function display
- C. Nothing is printed.
- D. Compiler Error :Type mismatch in parameter string

**33. What will be the output of the program ?**

```

int main()
{ int i;
char a[] = "\0";
if(printf("%s", a))
printf("The string is empty\n");
else
printf("The string is not empty\n");
return 0;}

```

- A. The string is empty
- B. The string is not empty
- C. No output
- D. 0

**34. What will be output if you compile and execute the following c code?**

```

int main(void)
{
int array[3]={5};
int i;
for(i=0;i<=2;i++)
printf("%d ",array[i]);
return 0;
}

```

- A 5 garbage garbage
- B 5 0 0
- C 5 null null
- D Compiler error

**35. What will be the output if you compile and execute the following c code?**

```
#include<stdio.h>
void main()
{
int array[]={10,20,30,40};
printf(“%d”,-2[array]);
}
```

- A. -60
- B. -30
- C. 60
- D. Garbage value
- E. Compiler error

**36. Find the output of the program**

```
main()
{
static char names[5][20]={"pascal","ada","cobol","fortran","perl"};
int i;
char *t;
t=names[3];
names[3]=names[4];
names[4]=t;
for (i=0;i<=4;i++)
printf("%s", names[i]);}
```

- A. pascal\0ada\0cobol\0fortran\0perl\0
- B. Compiler error: Lvalue required in function main
- C. pascaladacobolfortranperl
- D. Compiler error: Illegal initialization

**37. What is the output of the following program?**

```
#include<stdio.h>
void main()
{
int a=5,b=10,c=15;
int *arr[3]={&a,&b,&c};
printf(“%d”,*arr[*arr[1]-8]);
}
```

- A. 15
- B. 10

- C. 5
- D. Error: Array index cannot be an expression

**38. What will be output if you compile and execute the following c code?**

```
main()
{
char *str=NULL;
strcpy(str,"cquestionbank");
printf("%s",str);
}
A. cquestionbank
B. cquestionbank\0
C. (null)
D. it will print nothing
```

**39. What will be the output of the program ?**

```
#include<stdio.h>
int main()
{
int arr[1]={ 10};
printf("%d\n", 0[arr]);
return 0;
}
A. 1
B. 10
C. 0
D. 6
```

**40. In C, if you pass an array as an argument to a function, what actually gets passed?**

- A. Value of elements in array
- B. First element of the array
- C. Base address of the array
- D. Address of the last element of array

**41. Which of the following statements are correct about an array?**

- 1: The array `int num[26]`; can store 26 elements.
- 2: The expression `num[1]` designates the very first element in the array.
- 3: It is necessary to initialize the array at the time of declaration.
- 4: The declaration `num[SIZE]` is allowed if `SIZE` is a macro.

- A. 1,3
- B. 1,4
- C. 2,3
- D. 3,4

**42. What will be the output of the program ?**

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

```

int a[5] = {5, 1, 15, 20, 25};
int i, j, m;
i = ++a[1];
j = a[1]++;
m = a[i++];
printf("%d, %d, %d", i, j, m);
return 0; }

```

- A. 2,1,15
- B. 1,2,5
- C. 3,2,15
- D. 2,3,20

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

```

#include<stdio.h>
int main()
{
printf("%p\n", main());
return 0;
}

```

- A. It prints garbage values infinitely
- B. Runs infinitely without printing anything
- C. Error: main() cannot be called inside printf()
- D. Prints 0 infinitely

47. There is an error in the below program. Which statement will you add to remove it?

```

int main()
{
int a;
a = f(10, 3.14);
printf("%d\n", a);
return 0;
}
float f(int aa, float bb)
{
return ((float)aa + bb);
}

```

- A. Add prototype: float f(aa, bb)
- B. Add prototype: float f(int, float)
- C. Add prototype: float f(float, int)
- D. Add prototype: float f(bb, aa)

48. Find the output of the program

```

main()
{
int z=4;
printf(“%d”,printf(“%d%d”,z,z));
}

```

- }
- A. 442
- B. 443
- C. 444
- D. 4
- E. 3

**49. Which of the following are correct syntaxes to send an array as a parameter to function:**

1. func(&array);
  2. func(array);
  3. func(\*array);
  4. func(array[size]);
- A. 1,2,3
  - B. 1 and 2
  - C. 2 and 3
  - D. 1,2,3 and 4

**50. What will be the output of the program?**

```
#include<stdio.h>
int i;
int fun();
int main()
{ while(i)
  { fun();
    main();
  }
  printf("Hello\n");
  return 0;
}
int fun()
{ printf("Hi");
}
```

- A. Hello
- B. Hi Hello
- C. No output
- D. Infinite loop

**51. What will be the output of the program?**

```
#include<stdio.h>
int func1(int);
int main()
{ int k=35;
  k = func1(k=func1(k=func1(k)));
  printf("k=%d\n", k);
  return 0;
}
int func1(int k)
{ k++;
  return k;
}
```

- }
- A. k=35
- B. K=36
- C. K=37
- D. K=38

**52. What will be output of following program?**

```
main()
{
    int a = 320;
    char *ptr;
    ptr =( char *)&a;
    printf("%d ",*ptr);
}
```

- A. 2
- B. 320
- C. 64
- D. Compilation error
- E. None of above

**53. What will be output of following program?**

```
main()
{
    int i = 3;
    int *j;
    int **k;
    j=&i;
    k=&j;
    printf("%u %u %d ",k,*k,**k);
}
```

- A. Address, Address, 3
- B. Address, 3, 3
- C. 3, 3, 3
- D. Compilation error

**54. What will be output of following program?**

```
main()
{
    register a = 25;
    int far *p;
    p=&a;
    printf("%d ",*p);
}
```

- A 25
- B 4
- C Address
- D Compilation error
- E None of above

55. What will be output of following program?

```
main()
{
    char *p;
    printf("%d %d ",sizeof(*p),sizeof(p));}
```

- A 25
- B 1 2
- C Compilation error
- D None of above

56. Can you combine the following two statements into one?

```
char *p;
p = (char*) malloc(100);
```

- A. char p = \*malloc(100);
- B. char \*p = (char) malloc(100);
- C. char \*p = (char\*)malloc(100);
- D. char \*p = (char \*) (malloc\*)(100);

57. What would be the equivalent pointer expression for referring the array element  $a[i][j][k][l]$ ?

- A.  $((((a+i)+j)+k)+l)$
- B.  $*(*(*((a+i)+j)+k)+l)$
- C.  $((((a+i)+j)+k)+l)$
- D.  $((a+i)+j+k+l)$

58. What will be the output of the program ?

```
int main()
{
    static char *s[] = {"black", "white", "pink", "violet"};
    char **ptr[] = {s+3, s+2, s+1, s}, ***p;
    p = ptr;
    ++p;
    printf("%s", **p+1);
    return 0;
}
```

- A. ink
- B. ack
- C. ite
- D. let

59. What will be the output of the program ?

```
main()
{
    int x=30, *y, *z;
    y=&x; /* Assume address of x is 500 and integer is 4 byte size */
    z=y;
    *y++=*z++;
```

- ```

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

```
- A. x=31, y=502, z=502  
 B. x=31, y=500, z=500  
 C. x=31, y=498, z=498  
 D. x=31, y=504, z=504

**60. Which of the following statements correctly declare a function that receives a pointer to pointer to a pointer to a float and returns a pointer to a pointer to a pointer to a float?**

- A. float \*\*fun(float\*\*\*);  
 B. float \*fun(float\*\*);  
 C. float fun(float\*\*\*);  
 D. float \*\*\*\*fun(float\*\*\*);

**61. What will be the output of the program ?**

```

main()
{
    char str[] = "peace";
    char *s = str;
    printf("%s\n", s++ +3);
    return 0;
}

```

- A. peace  
 B. eace  
 C. ace  
 D. ce

**62. What will be the output of the program ?**

```

#include<stdio.h>
int main()
{
    char str[20] = "Hello";
    char *const p=str;
    *p='M';
    printf("%s\n", str);
    return 0;
}

```

- A. Mello  
 B. Hello  
 C. HMello  
 D. MHello

**63. What will be the output of the program ?**

```

int main()
{
    int i, n;

```



```

char *x = "girl";
n = strlen(x);
*x = x[n];
for(i=0; i<n;i++)
{
printf("%s\n",x);
x++;
}
}

```

A Compiler Error

B (blank space)

irl  
rl  
l

C l  
rl  
irl  
(blank space)

D (blank space) irl

**64. Point out the error in the program?**

```

struct emp
{
int ecode;
struct emp *e;
};

```

- A. Error: in structure declaration
- B. Linker Error
- C. No Error
- D. None of above

**65. What will be the output of the program ?**

```

int main()
{
union var
{
int a, b;
};
union var v;
v.a=10;
v.b=20;
printf("%d\n", v.a);
return 0;}

```

- A. 10
- B. 20
- C. 30
- D. 0

**66. What will be the output of the program ?**

```
#include<stdio.h>
int main()
{
    struct value
    {
        int bit1:1;
        int bit3:4;
        int bit4:4;
    }bit={ 1, 2, 13};
    printf("%d, %d, %d\n", bit.bit1, bit.bit3, bit.bit4);
    return 0;
}
```

- A. 1, 2, 13
- B. 1, 4, 4
- C. -1, 2, -3
- D. -1, -2, -13

**67. Below program compiles successfully.**

```
int main()
{
    struct student
    {
        int id;
        char name[20];
    };
    struct student a;
    a.id=20;
    a.name="PlacementYogi";
    printf("%d,%s",a.id,a.name);
}
```

- A. True
- B. False

**68. Point out the error in the program?**

```
#include<stdio.h>
int main()
{
    struct a
    {
        float category:5;
    }
    char scheme:4;
};
printf("size=%d", sizeof(struct a));
return 0;
}
```

- A. Error: invalid structure member in printf
- B. Error in this float category:5; statement

- C. No error
- D. None of above

**69. What will be the output of the program ?**

```
#include<stdio.h>
struct course
{
    int courseno;
    char coursename[25];
};
int main()
{
    struct course c[] = { {102, "Java"}, {103, "PHP"},{104, "DotNet"} };
    printf("%d ", c[1].courseno);
    printf("%s\n", (*(c+2)).coursename);
    return 0;
}
```

- A. 103 DotNet
- B. 102 Java
- C. 103 PHP
- D. 104 DotNet

**70. What will be the output of the program?**

```
main()
{
    union test
    {
        int i;
        float f;
        char c;
    };
    union test *t;
    t = (union test *)malloc(sizeof(union test));
    t->f = 10.10f;
    printf("%f", t->f);
}
```

- A. 10
- B. Garbage value
- C. 10.100000
- D. Error

**71. What will be the output of the program?**

```
struct XX
{
    int a:10;
    int b:6;
    char c;
} structure;
```

- ```

int main()
{
    int i = sizeof(structure);
    printf("%d", i);
}

```
- A 4  
B 8  
C 3  
D Compilation Error

**72. If the file 'source.txt' contains a line "Be my friend" which of the following will be the output of below program?**

- ```

#include<stdio.h>
int main()
{
    FILE *fs, *ft;
    char c[10];
    fs = fopen("source.txt", "r");
    c[0] = getc(fs);
    fseek(fs, 0, SEEK_END);
    fseek(fs, -3L, SEEK_CUR);
    fgets(c, 5, fs);
    puts(c);
    return 0;
}

```
- A. friend  
B. frien  
C. end  
D. Error in fseek();

**73. On executing the below program what will be the contents of 'target.txt' file if the source file contains a line "To err is human"?**

- ```

int main(){
    int i, fss;
    char ch, source[20] = "source.txt", target[20]="target.txt", t;
    FILE *fs, *ft;
    fs = fopen(source, "r");
    ft = fopen(target, "w");
    while(1){
        ch=getc(fs);
        if(ch==EOF)
            break;
        else {
            fseek(fs, 4L, SEEK_CUR);
            fputc(ch, ft); } }
    return 0;}

```
- A. r n  
B. Trh

- C. err
- D. None of above

**74. What will be the content of 'file.c' after executing the following program?**

```
#include<stdio.h>
int main()
{
FILE *fp1, *fp2;
fp1=fopen("file.c", "w");
fp2=fopen("file.c", "w");
fputc('A', fp1);
fputc('B', fp2);
fclose(fp1);
fclose(fp2);
return 0;
}
```

- A. B
- B. A  
B
- C. B  
B
- D. Error in opening file 'file1.c'

**75. What is the output of below C program**

```
enum status
{
a=0, e=4, i=8, o=14, u
};
int main(void)
{
printf(“%d”,u);
return 0;
}
```

- A. Compile Time Error
- B. 20
- C. 15
- D. 0

**76. Find the output of this program?**

```
enum status {
a=0, e=4, i=8, o=14, u=20};
int main(void)
{
int cnt=0;
char *s=“skill gun technologies”;
char *p=s;
while(*p){
switch(*p){
case 97+a:
case 97+e:
```

```
case 97+i:  
case 97+o:  
case 97+u:  
cnt++;  
break;  
}  
p++;  
}  
printf(“%d”,cnt) ;  
}
```

- A. 9
- B. 7
- C. 20
- D. 12