CHAPTER 12

INPUT/OUTPUT

1. What would be the output of the following program?

```
main()
{
  int a=250;
  printf(“%1d”, a);
}
```

Ans- 250

2. O/p?

```
main()
{
 float a=3.15529
 printf(“\n %6.2f”, a);
 printf(“\n %6.3f”, a);
 printf(“\n %5.4f”, a);
 printf(“\n %2.1f”, a);
 printf(“\n %0.0f”, a);
}
```

Ans:-

```
 3.16
3.155
3.1553
3.2
3
```

3. In the following code

```
#include<stdio.h>
main()
{
 FILE *fp;
 Fp=fopen(“trial”,”r”);
}
```

fp points to

a. The first character in the file.

b. A structure which contains a char pointer which points to the first character in the file.
c. The name of the file.
d. None of above.

Ans:- B.

4. Point to the error in the following code if any

```
#include”stdio.h”
main()
{
  unsigned char ch;
  FILE *fp;

  fp=fopen(“trial”, ”r”);
  while( (ch = getc(fp) ) !=EOF)
      printf(“%c”,ch);
  fclose(fp);
}
```

Ans:- EOF has been defined as #define EOF –1 in the file stdio.h and an unsigned character ranges from 0 to 255 hence when EOF is read from the file it can not be accommodated in ch. Solution is to declare ch as an integer.

5. Point out error if any in the following code.

```
#include”stdio.”
main()
{
  unsigned char;
  FILE *fp;

   fp= fopen(“trial”, “r”);
   if(!fp)
    {
        printf(“\n Unable to open file”);
        exit();
    }
  fclose(fp);
}
```

Ans:- No error.

6. If the file contains the line “I am a boy\r\n” then on reading this line into the array str using fgets( ) what would str contains?
    a. “I am a boy\r\n\0”
    b. “I am a boy\r\0”
    c. “I am a boy\n\0”
    d. “I am a boy”

Ans:- C.

7. Point out error if any in the following code

```
#include”stdio.h”
main()
{
  FILE *fp;
  fp=fopen(“trial”, “r”);
  fseek(fp, 20, SEEK_SET);
  fclose(fp);
}
```

Ans:- Instead of 20 use 20L since fseek( ) needs a long offset value.

8. To print out a and b given bellow, which printf statement would you use?

```
float a=3.14;
double b=3.14;
```

a. printf(“%f %F”, a, b);
b. printf(“%Lf %f”, a, b);
c. printf(“%Lf %Lf”, a, b);
d. printf(“%f %Lf”, a, b);

Ans:- A. It is possible to print a double using %f.

9. To scan a and b given bellow, which scanf( ) statement would you use?

```
float a;
double b;
```

a. scanf(“%f %f”, &a, &b);

b. scanf("%Lf %Lf", &a, &b);
c. scanf("%f %Lf", &a, &b);
d. scanf("%f %lf", &a, &b);

Ans:- D.

10. Point out error if any in the following code.

```
#include "stdio.h"
main( )
{
  FILE *fp;
  char str[80];

 fp= fopen("trial', "r");
 while(!eof(fp) )
 {
    fgets(str, 80, fp);
    puts(str);
 }
 fclose(fp);
}
```

Ans:- The last line from the file trial should be read twice. To avoid this use

```
   While(fgets(str, 80, fp)!= NULL)
      Puts(str);
```

11. Point out error if any in the following code

```
#include "stdio.h"
main( )
{
 char ch;
 int i;

 scanf("%c", &i);
 scanf("%d", &ch);
 printf("%c  %d", ch, i);
}
```

Ans:- You would not get a chance to supply a character for the second scanf( ) statement. Solution is to precede the second scanf( ) statement with the following statement

fflush(stdin);

This would flush out the enter hit for the previous scanf( ) to be flushed out from the input stream, i.e. keyboard.

12. O/?

```
main()
{
    printf("\n%%%%");
}
```

Ans:- %%

13. Point out error if any in the following code

```
#include"stdio.h"
main()
{
 FILE *fp;

 fp=fopen("c:\tc\trial", "w");
 if(!fp)
   exit( );
 fclose( );
}
```

Ans:- The path of the file should have been written a "c:\\tc\\trial".

14. Would the following code works? If yes what would be the output?

```
main()
{
 int n=5;
 printf("\n n=%*d", n, n);
}
```

Ans:- Yes

N= 5

15 What is the * in a printf( ) of Q14 above mean?

Ans:- It indicates that an integer value from the argument list will be used for field width. In the argument list the width preceeds the value to be printed. In this case the format specifier becomes %5d.

16.Can we specify variable field width in a scanf( ) format string?

Ans:- No. A * in scanf( ) format string after a %sign is used for assignment suppression. That is, the current input field is scaned but not stored.

17. To tackle a double in printf( ) we can use %f, whereas in scanf( ) we should use %lf.

Ans:- True.

18. Out of fgets( ) and gets( ) which function is safe to use?

Ans:- fgets( ), because unlike fgets( ), gets( ) cannot be told the size of the buffer into which the string supplied would be stored. As a result there is always a possibility of overflow of buffer.

19. A file written in text mode can be read back in binary mode.

Ans:- False.

20. We should not read after a write to a file without an intervening call to fflush ( ), fseek( ) or rewind( ).

Ans:- True.