CHAP 2

CONTROL INSTRUCTIONS.

1.what would be the o/p of the following program

```
main()
{
  int  i=4;
 switch(i)
 {
  default
    printf("\n a mouse");
 case 1:
     printf("\n a rabbit");
     break;
 case 2:
   printf("\n a tiger');
   break;
 case  3:
     printf("\n a lion");
 }
}
```

ans>a mouse
a rabbit

2. point out error in for loop if any-

```
main()
 {
    int i=0;
  for( ; ; )
   {
    printf("\n %d",i++);
    if(i>10)
     break;
    }
 }
```

a.the condition in the for loop is must.
b.the two semicolons should be dropped
c.the for loop should replaced by a while loop
d.no error.

Ans:d

3. point error if any in the while loop

```
main()
```

```
{
   int i=1;
   while()
    {
       printf("\n  %d", i++);
       if(i>10)
           break;
    }
}
```

a.the condition in the while is must.
b.there should be at least one semicolon in the while()
c.the while loop must be replaced by a for loop.
d.no error.

Ans:a

4.point out error if any

```
main()
 {
  int x=1;
  while(x<=5)
   {
     printf("%d",x);
     if(x>2)
      goto here;
   }
}
fun()
{
  here:
     printf("\n Nilesh");
}
```

ans:goto can not take control to different function.

5.point error if any

```
main()
 {
   x=4,y=2;
   switch(x)
    {
       case 1:
          printf("\n To error is human");
          break;
      case y:
          printf("\n don't do it here');
```

```
        break;
      }
}
```

ans:constant expression required in second case we cant use y.

6.point error if any

```
main()
 {
   int x=1;
   switch(x)
  {
     case 1:
       printf("\n Hellow");
       break;
     case 1*2+4:
       printf("\n the rock");
       break;
   }
}
```

ans:no error constand expression like 1*2+4 are acceptable in cases of switch.

7.point out error if any

```
main()
{
 int a=1;
 switch(a)
    {
    {
 printf("\n Programmers don't die. They just lost in the procressing");
 }
```

ans: no error but switch with no case is not required.

8.point out error if any.

```
Main()
{
  int x=1;
   switch(x)
     {
       printf("Hellow');
       case 1:
         printf("\n Nilesh");
         break;
      case 2;
```

```
        printf("\n Vivek');
        break;
      }
}
```

ans:though there is no error ,the first printf statement can never be executed irrespective of the value of x . In other words all the statements in the switch have to belong to some case or other.

9.Rewrite the following set of statements using conditional operator.

```
  Int a=1,b;
   If(a>10)
     B=20;
```

Ans: int a,b,dummy;
a>10?b=20:dummy=1;
note that the following would not work
a>10?b=20: ; ;

10.point out error if any.

```
Main()
 {
   int a=10,b;
a>=5?b=100:b=200;
printf("%d",b);
}
```

ans: lvalue required in function main().The second assignment should be written in the paranthesis as follows
a>=5?b=100☹b=200);

11. O/p?

```
main()
 {
  char str[]="part-time musicians are semiconductors";
  int a=5;
printf(a>10?"%50s":"%s",str);
}
```

a. part-time musicians are semiconductors
b. part-time musicians are semiconductors
c. error
d. none of above

ans: a

12. What is more efficient a switch statement or an if-else chain?

Ans: There is hardly any difference in efficiency in both cases. But one should use switch where it can be because it is a cleaner way to program.

13.Can we us switch statement to switch between strings.

Ans:No. cases in switch must be either integer constants or constant expressions.

14. We want to test whether the value lies between 2 to 4 or 5 to 7. can we do this using switch.?

Ans:Yes. But the way is not practical if the ranges are bigger. It is as shown bellow:-

```
switch(a)
{
case 2:
case 3:
case 4:
    /* some statements */
    break;
case 5:
case 6:
case 7:
    /* some statements */
   break;
}
```

15. The way break is used to take control out of switch can continue be used to take the control to the beginning of the switch.

Ans:No. continue can work only with loops and not with switch.