Switch statements :

→ The switch statement is a multi-directional conditional control statement.

→ Sometimes there is a need in program to make choice among number of alternatives. For making this choice, we use the switch statement.

→ The switch statement requires only one argument of any data type, which is checked with number of case options.

→ The switch statement evaluates expression and then looks for its value among the case constants.

→ If value matches with the case constants, this particular case statement is executed and if not, default is executed.

→ Here switch, case, and default are reserved words.

→ Every case statement terminates with ':'.

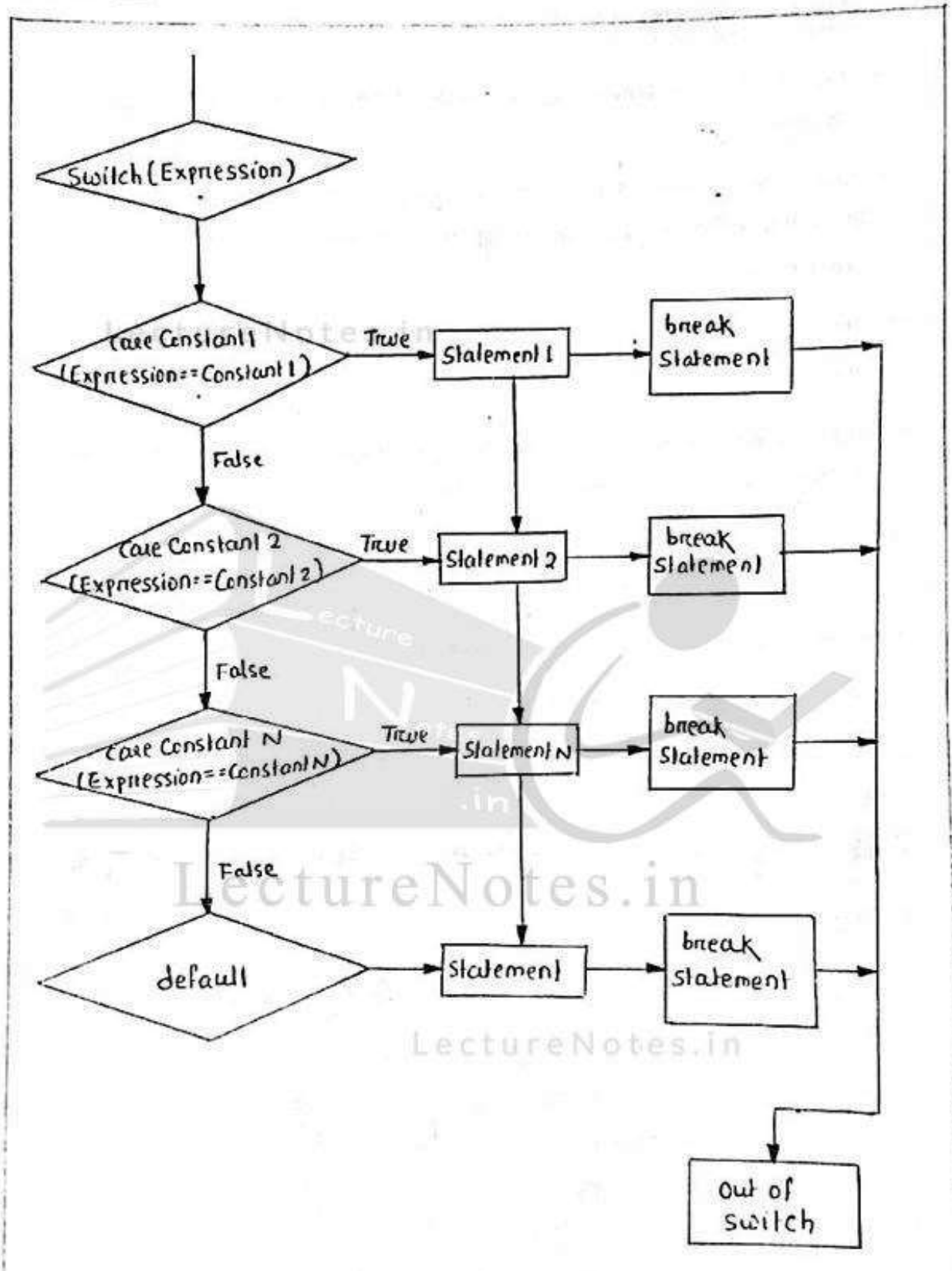
→ The break statement is used to exit from the current case structure.

→ The switch statement is useful for writting menu driven program.

→ Syntax :

```
Switch ( variable or expression)
  {
    case 'Constant1' :
        Statement1;
        break ;
    case 'Constant2' :
        Statement2;
        break ;
    ---------
    ---------
    default :
        Statement ;
  }     break;
```

Flowchart.



(switch statement)

Example : /* program to perform arithmetic calculations on integers */

```
#include <stdio.h>
#include <conio.h>
void main()
{
  char op;
  int a,b;
  clrscr();
  printf("Enter number operator and another number :");
  scanf("%d%c%d", &a, &op, &b);
 switch(op)
 {
    case '+':
       printf("Result = %d\n", a+b);
       break;
    case '-':
       printf("Result = %d\n", a-b);
       break;
    case '*':
       printf("Result = %d\n", a*b);
       break;
    case '/':
       printf("Result = %d\n", a/b);
       break;
    case '%':
       printf("Result = %d\n", a%b);
       break;
    default:
       printf("Enter valid operator");
       break;
    }
    getch();
}
```

Output : Enter number operator and another number :

2+5

Result = 7

Example : /* program to find whether the alphabet is a vowel or Consonant */

```
#include <stdio.h>
#include <conio.h>
void main()
{
   char ch;
   clrscr();
   printf("Enter an alphabet\n:");
   scanf("%c", &ch);
  switch(ch)
   {
      case 'a': case 'A':
      case 'e': case 'E':
      case 'i': case 'I':
      case 'o': case 'O':
      case 'u': case 'U':
         printf("Alphabet is a vowel\n");
         break;
   default:
      printf("Alphabet is a ~~vowel~~ Consonant\n");
   }
  getch();
}
```

Output : Enter an alphabet : a

Alphabet is a vowel