(("Combination the condition

- logical operators: it can b used i conditional Expression, which will be evaluated and return true or False. True and False are boolean value. A boolean Expressi involves logical operators which are used to combine Conditiona Expressions together.

there are 3 types of logical operator

1- AND 2- OR. 3- NOT.

1- AND :-

if (admin='admin') AND (password = 'pass') then writeln('login accepte

Expression 1	Expression 2	AND
T	T	T
T	F	F
F	T	F
F	F	F

2- OR :-

IF (month = 'july') OR (month = 'A

then writeln('month is either

or August').-

Expression 1	Exp 2	OR
T	T	T
T	F	T
F	T	T
F	F	F

3- NOT :- It is different from th

AND, OR operators it accept

only one input and inver

it.

input	NOT
T	F
F	T

if not (n1='0') then Hal

steed iF- then statement:-

Syntax:-

```
if ( condition 1) then
   if ( condition 2) then S1
else
   S2;
```

ex!

```
Program nestedif;
var
  a,b : integer;
begin
  a:= 100;
  b:= 200;
if (a=100) then   { if con is T then check
                            the Following }
 if (b=200) then
 writeln('value of a is 100 and
              value of b is 200');
writeln('Exact value of a is:', a);
writeln('Exact value of b is:', b);
end.
```

output

```
value of a is 100 and b is 200
Exact value of a is:100
Exact value of b is:200
```

بنية الشرط الانتقائي

Case statement :-

(allow us to implement multiple decisions in a Program.

Syntax:

المتغير

```
case ( ~~condition~~ variable ) of      متغير
  L1 : S1 ;
  L2 : S2 ;
  ...
  ...
  Ln : Sn ;
end;
```

or

```
read(exp);

case (exp) of
 value 1 : stmt1
 value 2 : stmt2
 value 3 : stmt3
 ---
 ---
 value n : stmtn
End;
```

where L1, L2 ... are input data or case ~~[illegible]~~ labels, which ~~is~~ could b integers, charecters, boolean or enumerate S1, S2, -- are Pascal statements. each of these statements may have one or more than one case label associated with

ملاحظة : . يتم تنفيذ الجملة الاولى (stmt1) اذا كانت قيمة المتغير (cond) تساوي القيمه value1 وهكذا . بالنسبة للثانية والثالثة

Case Statement must always
ave an end Statement associated
with it.
the case lable for acase must be
the Same data type as the
Expression in the case Statement.
the Compiler will evaluate the
case expression. if one of the
case lable's value matches the
value of the expression, the
statement that follows the lable
is executed. after that, the
program is Continues after
the final end.

if none of the Case lable matches
the expression value, the Statement
list after the else or otherwise
keyword is executed.

جملة case تقرأ جميع المتغيرات
ما عدا real فلا يجوز

يجوز حلها

NO real

if-then-else
اتكراره

```
Program ss;
var
   grade : char;
begin
   grade := 'A';
   case (grade) of
   'A' : writeln ('Excellent');
   'B','C' : writeln ( 'well done');
   'D' : writeln ('you passed');
   'F' : writln ('Failed');
   end;
   writeln ('your grade is ', grade);
end.
```

good or

جملة case

output.

```
Excellent
your grad is A .
```

① **H.W :** write Pascal stmt to display the text string "valve open" if the variable waterflow is equal to 1, AND the variable output value is equal to 0,

صمام
تدفق الماء
مفتوح

2) H.W

write pascal stmt to comp
the charecter variable letter
to the charecter Constant 'A'
and if less, Prints the "toolow"
otherwise Print the "Too high",

2 مثال case — of

```
read (Color);
CASE Color of
 'red': writeln ('stop');
'yellow': writeln ('wait');
'green': writeln ('Pass')
END;
```

وصفي!:

اذا كانت قيمة المتغير color يساوي red أُطبع توقف.

وان كان اصفر اطبع انتظر.

وان كان اخضر اطبع (تجاوز).

```
 gin
   read(x)
 iF x>=90 then
   mark:= 'A'
 else
    if x>= 80 then
   mark:= 'B'
 else
    iF x>= 70 then
   mark:= 'c'
 else
   iF x>= 60 then
   mark:= 'D'
 else
   iF x>= 50 then
   mark:= 'E'
 else
    iF x>=0 then
   mark:= 'F'
     writeln (mark);
 end.
```

الحل بطريقة Case-of

```
Begin
    Read(x);
Case x of
    90..100: writeln('A');
     80..89: writeln('B');
     70..79: writeln('C');
     60..69: writeln('D');
     50..59: writeln('E');
      0..49: writeln('F');
  End;
End.
```