* Pascal :- is a general purpose, high level (Introduction)

Programming languages. Pascal.

Added

Features of Pascal

- Provides a teaching language that highlights concepts common to all Computer languages.

- Standardize the language in such away that it makes Programs easy to write.

* **Basic Format of every pascal program**

Program Titles. ↓ Program name.

```
Program Titles.          Program name.

var
{ Program variables}.
begin
{ Program Statements }.

end.
```

Program is the First word of all Pascal Programs. It is a keyword (i.e keywords are reserved, You Can not use it to describe variable).

→ Title: is the Pascal Program name.

→ **var** :- declaration Part of the Program, we identify all the variables that we Can use it in the program.

→ **begin**: Starting point of the program. Provides a means of grouping Statements Together.

→ program Statements are Commands or instructions to the Computer which Perform various Tasks.

{ all program Statments and lines are terminated with a Semi-Colon, Except the **begin** and **End** keywords.

→ Program statements Preceeding an end statment Do not require a Semi-Colon.

②

imple Pascal Program.

→ write a program to print the word "hell

on the Console Screen.

```
Program First;
begin
    writeln ('hello').
end.
```

* Pascal variables: variables Store values
and information, they allow programs to
perform calculations and Store data for
later retrieval. variables store number,
name, text message, etc.

* variables types.
  . integer :- Store whole numbers.
       (34   6450   0   - 90)
  . char :- hold any valid character whi
    is typed from the keyboard.
       (XYZ, °ABC, SAM_SAID, ℓ [ ], { }, +,
  . Boolean :- called logical variables.
    can only have one of two possible
       States. (true or false).

d:- are positive or negative number which $\emptyset$ have decimal places.

(34.300)

→ the basic Format For declaring variable

$$\{ \text{var name : type ;} \}$$

→ where name is the name of the variable being declared.

and type is one of the recognised data types for pascal.

H.M

ex!- classify each of the following according to the basic data types:

$$\{ (34.276, -37, H, <, 0.0, 0, dd, 5.09E+27). $$

④

operators:-

an operator is a symbol that tells the compiler to perform specific mathematical or logical manipulations.

operators types:-

- Arithmatic operators.
- Relational operators.
- Boolean operators.
- Bit operators.
- Set operators.
- String operators.

Arithmetic Statements. (operators).

the following symbols represent the arithmetic operators. use them when you wish to perform calculations.

+   Addition :- add two operators.

-   subtraction :- subtruct second operand From the First.

*   Multiplication :- multiple both operands.

/   Division :- divides numerator by denominator.

→ addition Example

```
program adds
var
    x, y, result : integers
begin
    X := 10;
    Y := 5;
    result := X + Y;
    writeln (x, "plus", y "is", result)
end.
```

* write and writeln Statements.

→ write Statement leaves the cursor at the end of the current line.

→ writeln Statment, in the cursor is position at the begining of the next line.

→ when printing text using or write or writeln, the text is enclosed using singl qoutes.

→ if the program is required to input data from the key board and also write the data on consol screen the firs line of the program reads.

→ if the program required to input data from keyboard the first line of the program reads.