

What will be the sixth generation of a computers and why do we need such computers?

01

a.

i

- $T$  is the final set of terminal symbols. denoted by lower case
- $G$  is a grammar. Used to ~~denote~~ generate strings
- $V$  is the final set of non-terminal symbols.
- $P$  is a set of production rules.
- $S$  is the start symbol.

Explain why variables are needed in programming.

01

a.

ii

- Variables are used to store information
- It is **not** helpful to think of variables as containers that hold information.



Give four (4) main properties associated with a variable.

02

a.

ii

Type : Specifies the type of data stored.

Name : necessary to identify the variable

Address of the memory location containing the stored data

Value : the data denoted by the variable at a certain point during the execution

Why the Python programming language is called a dynamically typed programming language?

02

a.

ii

- Python is called a dynamically typed programming language because it allows variables to hold different types ~~of~~ during runtime.
- Variable Declarations.
- Type Inference.
- Statistic Reassignment.