

Representation of L: L = [1, 23, 'hi', 6]

- (i) list
  - (ii) dictionary
  - (iii) array
  - (iv) tuple
- Answers: (a) (iv)      (b) (iii)      (c) (iv)      (d) (i)      (e) (ii)      (f) (iv)
- (g) (ii)      (h) (iii)      (i) (i)      (j) (i)      (k) (iii)      (l) (iii)
- (m) (i)      (n) (i)      (o) (iii)      (p) (i)      (q) (i)

### SOLVED QUESTIONS

1. What is Python?

Ans. Python is a high-level, interpreted, dynamic, Object-Oriented Programming Language that support GUI programming.

2. Why is Python interpreted?

Ans. Python is interpreted because the program is processed at runtime by the interpreter and we do not need to compile the program before executing it.

3. Who developed Python?

Ans. Python was developed by Guido van Rossum in the early nineties at the National Research Institute for Mathematics in the Netherlands.

4. Why is Python easy to learn?

Ans. Python has relatively few keywords, simple structure and a clearly defined syntax. This allows the student to understand and work easily in a relatively short period of time.

5. Write any one feature of Python library.

Ans. Python library is very portable and cross-platform compatible with UNIX, Windows and Macintosh.

6. Is Python a compiler language or an interpreter language?

Ans. The normal execution of Python program is interpreted. However, subsets of the language can be compiled. [HOTS]

7. State some distinguishable features of Python.

Ans. Python is a modern, powerful, interpreted language with objects, modules, exceptions (or interrupts) and automatic memory management.

#### Salient Features of Python are:

- **Simple and Easy:** Python is a simple language that is easy to learn.
- **Free/Open source:** Anybody can use Python without the need to purchase a licence.
- **High-level Language:** Being a high-level language, it can be easily understood by the user without the need to be concerned with low-level details.
- **Portable:** Python codes are machine and platform-independent.
- **Extensible and Embeddable:** Python programs support usage of C/C++ codes.
- **Standard Library:** Python standard library contains pre-written tools for programming.

8. Distinguish between Java and Python.

Ans. Java and Python can be distinguished on the following bases:

1. Python programs run slower than Java codes, but Python saves much time and space. Python programs are 3 to 5 times smaller than Java programs.