

Solved and unsolved questions for you.

**FILL IN THE BLANKS**

1. \_\_\_\_\_ are instructions given to a computer.
2. Python was developed by \_\_\_\_\_.
3. \_\_\_\_\_ is interpreted.
4. Python syntax is \_\_\_\_\_.
5. In Python, a syntax error is detected by the \_\_\_\_\_ at \_\_\_\_\_.
6. Python is a \_\_\_\_\_ independent language.
7. Which of the following codes is correct? \_\_\_\_\_

I:

```
print("Programming is fun")  
print("Python")  
print("Computer Science")
```

II:

```
print("Programming is fun)  
print("Python")  
print("Computer Science)
```

III:

```
Print("Programming is fun")  
print("Python")  
print("Computer Science")
```

IV:

```
Print("Programming is fun")  
Print("Python")  
Print("Computer Science")
```

8. To start Python from the command prompt, use the \_\_\_\_\_ command.

9. Python programs are saved using the \_\_\_\_\_ or \_\_\_\_\_ extension.  
10. Python programming can be done in \_\_\_\_\_ and \_\_\_\_\_ modes.

### ANSWERS TO FILL IN THE BLANKS

- |                         |                         |           |                   |
|-------------------------|-------------------------|-----------|-------------------|
| 1. Programs             | 2. Guido van Rossum     | 3. Python | 4. Case-sensitive |
| 5. Interpreter, runtime | 6. Platform             | 7. I      | 8. Run Python     |
| 9. .py, .pyw            | 10. Interactive, Script |           |                   |

### SOLVED QUESTIONS

1. What is Python?

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

2. Why is Python interpreted?

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

3. Who developed Python?

Ans. Python was developed by Guido van Rossum in 1991 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.

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. Python is a free and open-source language. What do you understand by this feature?

Ans. As we do not have to pay anything to download it. Python signifies that it is a free and open-source language. Also, being an open-source language, its source code is also available if we wish to modify it.

8. State some distinguishable features of Python.

Ans. Python is a modern, powerful, interpreted language with objects, modules, exceptions (or interrupts) and automatic memory management. It was introduced to the world by Guido van Rossum in the year 1991.

**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.

9. Distinguish between Java and Python.

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

- (a) 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.
- (b) Python is a loosely-typed dynamic language as no time gets wasted in declaring variable types as in Java.
- (c) Python is easier to learn as compared to Java.

10. Python is a cross-platform language. How?

Ans. A cross-platform language signifies that it is compatible and can run well on several platforms like Windows, Macintosh, Linux/Unix, etc.

11. What is the difference between interactive mode and script mode in Python?

**Ans.** In interactive mode, instructions are given in front of Python prompt (`>>>`) in Python Shell. Python carries out the given instructions and shows the result there itself.

In script mode, Python instructions are stored in a file, generally with `.py` extension, and executed together in one go as a unit. The saved instructions are known as Python script or Python program.

12. Give the output for the following:

(a) `print("Hello")`

(b) `print(5.5)`

(c) `print(4+6)`

**Ans.** `>>> print("Hello")`

Hello

`>>> print(5.5)`

5.5

`>>> print(4+6)`

10

13. Which of the following are invalid strings in Python?

(a) `'Python'`

(b) `"Python"`

(c) `"Python"`

(d) `'Python'`

(e) `(Python)`

**Ans.** (a), (b) and (e) are the invalid strings in Python.

## UNSOLVED QUESTIONS

1. When was Python introduced?
2. Who developed Python and which two languages contributed to Python as a programming language?
3. Is Python case-sensitive?
4. What is IDLE?
5. Differentiate between displaying and printing method in Python.
6. Briefly explain the salient features of Python.
7. What do you understand by cross-platform software with respect to Python?
8. What are the advantages of Python programming language?
9. In how many different ways can you work in Python?
10. What are the advantages/disadvantages of working in Interactive mode in Python?
11. Write instructions to the Interactive mode for the following:
  - (a) To display sum of 3, 8.0,  $6*12$
  - (b) To print sum of 16, 5.0, 44.0

