

## Home work of first chapter of python.

1-A program must be converted to.....language to be executed by a computer.

(Machine).

2-.....is a Logical programming language.

(PROLOG).

3-The program written only using 0's and 1's is

(Machine).

4-The founder of python is

(Guido van Rossum).

5-Python is a compiled language.

(True).

6-This programming paradigm emerged to remove the reliance on the GOTO

(Structured).

7-Which python library is popularly referred to as the HTTP library written for humans.

(Requests).

8-In which phase of SDLC does the software developer analyses whether software can be prepared to fulfill all the requirements of the end user?

(Development).

9-This license allows a patent grant for derivative works.

(Apache License).

10-A group of people maintain exclusive control over the source code of a software Such software is called

(proprietary).

11-what is a programming language?

A programming language is a computer language engineered to communicate instructions to a machine.

12-Briefly explain the steps to install Anaconda.

Go to the link <https://www.continuum.io/downloads>.

In the Advanced installation options screen select all the check box ignore the warnings and click the install button. This start the installation of Anaconda python Distribution and once the installation is complete click on next button. And finish the setup by clicking on Finish button.

13-Describe the setups to install PyCharm.

Go to the official JetBrains website <https://www.jetbrains.com/pycharm/download>. Choose the operating system then select the Edition And then click download.

14-outline the advantage and disadvantage of machine language.

The main advantage of machine language is that it can run and execute very fast as the code will be directly executed by a computer and the programs efficiently utilize memory.

Some of the disadvantage of machine language are:-

- Machine language is almost impossible for humans to use because it consists entirely of numbers.
- Machine language programs are hard to maintain and debug.
- Machine language has no mathematical functions available.

15-why do we need programs?

We need programs because computers do not understand human language they only understand binary. Programs act as bridge between humans and computers.

16-Outline the advantage and disadvantage of high-level language.

Advantage

- Easier to modify faster to write code and debug as it uses English like statements.
- Portable code as it designed to run on multiple machines.

Disadvantage

- Slower execution speed.
- Less hardware control.
- Higher memory usage.

17-Give a brief explanation of the history of python.

The history of python programming language dates back to 1980s and its implementation was started in December 1989 by Guido van Rossum.

18-Diferentnce between interpreter and compiler.

Interpreter

- Translates line by line and executes immediately.
- Slower because it translates each line on spot.
- Stops immediately when it finds an error (easy to debug).
- Uses less memory.

A Compiler is like a translator who translates the whole book first before giving to you but Interpreter is like a translator who translates sentence by sentence while you speak.

19-Mention of disadvantage of Assembly language.

Some of the disadvantage of Assembly language are:-

- There are no symbolic names for memory locations.
- It is difficult to read.
- Assembly language is machine-dependent making it difficult for portability.

20-Discuss various steps involved in the software development life cycle (SDLC).

Requirement Analysis < system design < coding < testing < deployment < Maintenance.

21-Give a brief description of open source software.

Open source software is software with source code that anyone can inspect, modify, and enhance.

22- Explain the different types of licenses under which open source software can be released.

Apache license, BSD license, GNU general public license, MIT license and Creative commons license.

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