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➢ **Multiple choice questions**

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

A: Assembly

✓ B: Machine

C: High level

D: very high level

2: --------is a logical programming language.

✓ A: PROLOG

B: Python

C: c#

D: Java

3: The program written only using 0`s and 1`s is

A: PHP

B: High level

C: Python

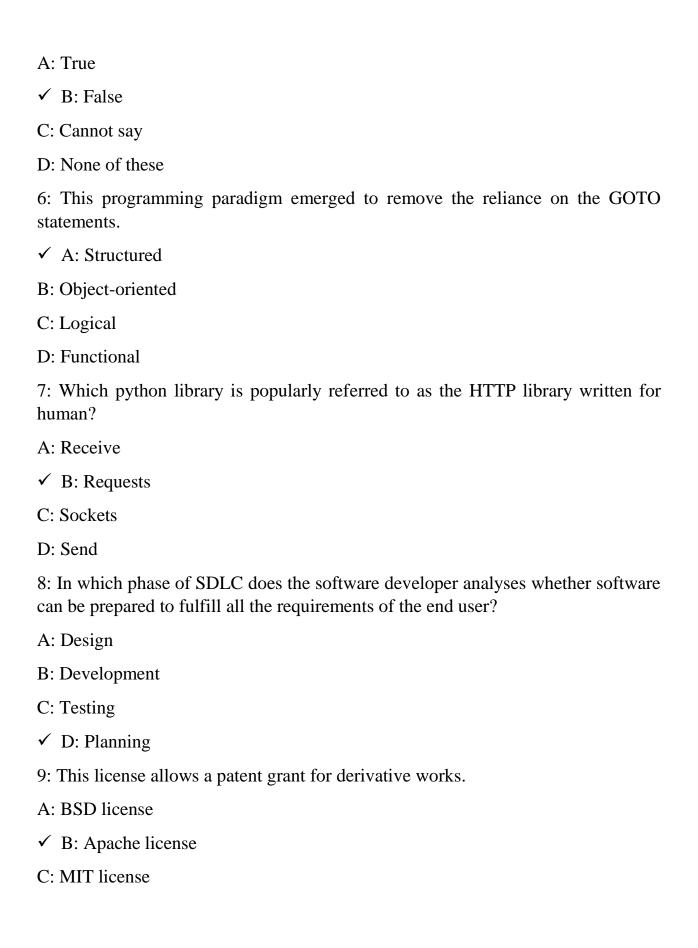✓ D: Machine

4: The founder of Python is

A: Charles Babbage

✓ B: Guido van Rossum

C: Dennis Ritchie

D: Larry Wall

5: python is a compiled language.

A: True

✓ B: False

C: Cannot say

D: None of these

6: This programming paradigm emerged to remove the reliance on the GOTO statements.

✓ A: Structured

B: Object-oriented

C: Logical

D: Functional

7: Which python library is popularly referred to as the HTTP library written for human?

A: Receive

✓ B: Requests

C: Sockets

D: Send

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?

A: Design

B: Development

C: Testing

✓ D: Planning

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

A: BSD license

✓ B: Apache license

C: MIT license

D: CC license

10: A group of people maintain exclusive control over the source code of a software.

Such software is called

A: Freeware

B: Share ware

✓ C: Proprietary

D: Adware

➢ Review Questions

1: What is a programming language?

Answer: A programming is a set of instruction instructing a computer to do specific tasks.

2: Briefly explain the steps to install Anaconda.

Answer: For install of Anaconda we have six step first download installer second run the installer

Third follow setup instructions forth add to PATH fifed finish installation sexed verify installation.

3: Describe the steps to install PyCharm.

Answer: Step 1: Go to the official Jet Brains website (www.jetbrains.com/pycharm)

Step 2: Open the downloaded file and start the installation wizard.

Step 3: Choose installation location. Select options like creating a desktop shortcut or adding PyCharm to PATH. Click install.

Step 4: Once installed click finish and launch PyCharm.

Step 5: Choose UI them. Configure plugins if needed. Start a new project or open an existing one.

4: Outline the advantages and disadvantages of machine language.

Answer: 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 disadvantages 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 function available.
- Memory location is manipulated directly requiring the programmer to keep track of every memory location.

5: Why do we need programs? Comment on this.

Answer: because program is very necessary in every area like supermarkets, banks, insurance industries process control, hospital, offices, government institutions, education, research, telecommunication, transport industry and many more.

6: Outline the advantage and disadvantage of high-level language.

Answer: Advantages of high-level language are:

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

Disadvantages of high-level language are:

- Slower execution speed, less hardware control.
- More memory usage, dependency on compilers.

7: Give a brief explanation of the history of python.

Answer: The history of the python programming language dates back to the late 1980s. Python was conceived in the late 1980s and its implementation was started in December 1989 by Guido Van Rossum at CWI in the Netherlands as a successor to the ABC programming language capable of the exception handling and interfacing with the Amoeba operating system.

8: Differentiate between interpreter and compiler.

Answer: Interpreter: Translates code line by line, slower, show errors instantly no executable file.

Compiler: Translates codes all at once faster after compiling shows all errors together creates executable file.

9: Mention disadvantages of assembly language.

Answer: Some of the disadvantages of Assembly language are:

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

10: Discuses various step involved in the software development life cycle.

Answer: planning, Analysis and requirement gathering, Design, development, Testing, Deployment, Maintenance.

11: Give a brief description of open source software.

Answer: open source software plays a very important role in our dilly life. Some of the most popular open source software are android, firefox, linux, wordpress, python and others.

12: Explain the different types of licenses under which open sources software can be released.

Answer: MIT: very permissive allows reuse with minimal condition. GNU: requires sharing source code if modified and distributed. Apache: permissive includes patent protection. BSD: simple and flexible allows redistribution with or without changes.