Multiple choice question

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 programing language.

A) PROLOG   B) python   C) C#   D) java

3. the program written only using 0 and 1 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) Can not say   D) None of these

6. this programing 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 humans.

A) Receive   B) Requests   C) Sockets   D) Send

8. in which phase of SDLC dose the software developer analyses whether software can be prepared to fulfil 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) Shareware   C) Proprietary   D) Adware

Review Questions

1. What is programing language?

An. A programing language is a formal set of rules and syntax used to write instructions that a computer can understand and execute.

2. Briefly explain the steps to install Anaconda.

An. 1. Download from the official website.

2. Run the installer

3. Accept the terms

4. choose installation location

5. finish and launch Anaconda

3. Describe the steps to install PyCharm

An 1. Download from official JetBrains website

2. Run the installer

3. Accept the license agreement

4. Choose installation location and options

5. click install and finish

6. launch PyCharm and set initial preferences

4. outline the advantages and disadvantages of machine language.

<mark>An.</mark> Advantages:

1. executes very fast because it is directly understood by the CPU

2. no need for a translator or interpreter

Disadvantages:

1. very difficult to learn and write

2. complex and error-prone

3. Hardware-dependent

5. why do you need program? Comment on this

<mark>An</mark>. We need a program because it gives the computer specific instructions to perform tasks solve problems and process data efficiently

6. outline the advantages and disadvantages of high-level language.

<mark>An.</mark> Advantages:

1. easy to learn and understand

2. programs are easier to write, read and maintain

3. can be used on different computer systems (portable)

Disadvantages:

1.slower execution speed than machine language

2. needs a compiler or interpreter

3. provides less control over hardware resources

7. Differentiate between interpreter and compiler.

<mark>An</mark>. Compiler: translates the whole program into machine language at once then executes it

Interpreter: translates and executes the program line by line

8. mention disadvantages of assembly languages.

<mark>An.</mark> One disadvantages of assembly language is that it is hard to learn and write, and it is hardware-dependent.

9. discuss various step involved in the software development life cycle.

<mark>An.</mark> Planning, analysis, design, development, testing, deployment, maintenance

10. gives a brief description of open-source software.

<mark>An.</mark> Open-source software is a software whose source code is freely available for anyone to view, modify, and distribute

11. explain the different types of licenses under which open-source software can be release

<mark>An</mark>. GPL, MIT, Apache, BSD

Exercises from pages 32 to 34

<mark>**Solved by Hadi Azizi**</mark>