What is Open Source Software?

a) Software whose source code is kept secret
b) Software that is developed by a company and sold for profit
c) Software whose source code is publicly available and can be modified and distributed
d) Software which is private and not distributed.

What is the Open Source Initiative (OSI)?
a) An organization that promotes and maintains the Open Source definition and approves Open Source licenses
b) A group of hackers who develop Open Source Software
c) A political movement advocating for the use of Open Source Software in government
d) None of the above.

The Open source definition is based on the _____.
a) software license.
b) free software foundation
c) debian free software guidelines
d) open source initiative

Developing open source software can mean _____.
a) basing it on open source technologies and open standards.
b) working collaboratively with other groups.
c) to redistribute the source code widely
d) to use the source code widely

A guideline for the OSS licenses other than the GPL.
a) OSI
b) OSD
c) OSE
d) OSL

Which of the following is an example of open source software?
a) Adobe Photoshop
b) Microsoft Word
c) Libre Office
d) Skype

Which of the following is not 'open source' software?
a) Linux
b) Ubuntu
c) Open Office
d) Window 10

Which of the following is not 'proprietary' software?

a) Windows 10
b) MAC OSX
c) Audacity
d) McAffee

Which of the following is an advantage of ‘open source’ software?
a) You can edit the source code to customize it
b) You need to be an expert to edit code
c) You have to pay
d) Can sometimes be too generic for specialist purposes

What is a benefit of Open Source Software for developers?
a) It is always easier to use than proprietary software
b) It promotes collaboration and allows for learning from others' code
c) It provides job security for developers
d) none of the above

Which of the following is a key characteristic of open-source software development?
a) Proprietary code
b) Closed development process
c) Collaboration and community involvement
d) Limited user customization

What is the main principle of Free Software?
a) It must be distributed at no cost to the user
b) It must be available with the source code and under a license that allows for modification and redistribution
c) It must be approved by a governing body before it can be used

What is a benefit of using Free Software for education?
a) It is always more difficult to learn than proprietary software
b) It allows for more collaboration and sharing of knowledge
c) It is always more expensive than proprietary software
d) It has no benefits

What does GPL stand for?
a) General Public License
b) Global Programming Language
c) Google Programming Language
d) General Private Language

What does LGPL stand for?
A. Lesser General Public License
B. Less General Public License
C. Lesser General Private License
D. Less General Private License

What is the main advantage of using LGPL over other open source licenses?
A. It provides a balance between permissive and restrictive licensing
B. It is compatible with a wider range of software licenses
C. It is easier to understand and comply with than other licenses
D. All of the above

What is the main purpose of copyright law?
A. To protect the rights of authors and creators
B. To prevent anyone from using creative works without permission
C. To limit access to creative works to a select group of people
D. To promote the public domain and unrestricted use of creative works

In the open-source model, what is the role of the community?
a) Limited to bug reporting
b) Actively participates in development and improvement
c) Restricted to a small group of developers
d) Excluded from the development process

What is the primary motivation for developers to contribute to open-source projects?
a) Financial gain
b) Access to proprietary tools
c) Recognition and collaboration
d) Exclusive ownership of the code

What is a patent license?
A. A legal agreement that grants permission to use, manufacture, or sell a patented invention
B. A legal agreement that prohibits the use, manufacture, or sale of a patented invention
C. A legal agreement that transfers ownership of a patented invention
D. A legal agreement that invalidates a patent

Which of the following is not a type of open source license?
A. Proprietary License
B. GNU General Public License
C. MIT License
D. Apache License

What type of operating system is Fedora?
A. Proprietary
B. Closed-source
C. Open-source
D. Commercial

What is Argo UML?
i. A programming language
ii. A design tool
iii. A version control system

iv. A database management system

Which of the following diagrams can be created using Argo UML?
i. Class diagram
ii. Use case diagram
iii. Sequence diagram
iv. All of the above

What is a Version Control System (VCS)?
A. A tool that helps to manage and keep track of changes made to software code.
B. A tool that automatically detects bugs in software code.
C. A tool that automatically compiles and deploys software code.
D. A tool that helps to manage databases and data migrations.
Answer: A

Developing open source software can mean _____.
a) basing it on open source technologies and open standards.
b) working collaboratively with other groups.
c) to redistribute the source code widely
d) to use the source code widely
Ans. c

Which of the following is not 'open source' software?
a) Linux
b) Ubuntu
c) Open Office
d) Window 10
Ans. d

What is a benefit of using Free Software for education?
a) It is always more difficult to learn than proprietary software
b) It allows for more collaboration and sharing of knowledge
c) It is always more expensive than proprietary software
d) It has no benefits

Which of the following is a key characteristic of open-source software development?
a) Proprietary code
b) Closed development process
c) Collaboration and community involvement
d) Limited user customization
Answer: c) Collaboration and community involvement

Which of the following is an advantage of 'proprietary' software?
a) Regular updates provided by professionals

b) A community of enthusiasts keep updating it
c) Not as customizable
d) Can sometimes be too generic for specialist purposes
Ans. a

What does LGPL stand for?
A. Lesser General Public License
B. Less General Public License
C. Lesser General Private License
D. Less General Private License

What is the main purpose of copyleft licenses?

A. To restrict the use of creative works to non-commercial purposes
B. B. To ensure that all derivative works of a creative work remain open source
C. C. To promote the free use and sharing of creative works
D. D. To protect the intellectual property rights of the creator

How long does a patent typically last?
A. 5 years
B. 10 years
C. 20 years
D. 50 years

Can an invention be patented if it has been publicly disclosed before filing for a patent?
A. Yes, as long as the public disclosure was made by the inventor
B. Yes, as long as the public disclosure was made within the last year
C. No, any public disclosure before filing for a patent can invalidate the patent
D. It depends on the specific circumstances of the public disclosure

Which of the following is an example of open source software?
A. Microsoft Windows
B. Adobe Photoshop
C. Linux
D. Apple macOS

What type of operating system is Fedora?
A. Proprietary
B. Closed-source
C. Open-source
D. Commercial

What types of UML diagrams can be created using Argo UML?
a) Use case diagrams
b) Class diagrams
c) Sequence diagrams
d) All of the above
Answer: d) All of the above

What is a UML diagram?
a) A diagram used for testing software

b) A diagram used for generating code
c) A visual representation of object-oriented software systems
d) None of the above
Answer: c) A visual representation of object-oriented software systems

FIND THE ANSWERS BY YOUR OWN FOR THE BELOW MCQ

What is the primary goal of open source software?
A. To make a profit for the developers
B. To restrict access to the software
C. To allow anyone to use, modify, and distribute the software
D. To prevent others from using the software

2. Which of the following is an example of open source software?
A. Microsoft Windows
B. Adobe Photoshop
C. Linux
D. Apple macOS

3. Which open source license allows anyone to use, modify, and distribute the software without any restrictions?
A. MIT License
B. GNU General Public License
C. Apache License
D. Creative Commons License

4. What is the purpose of a copyleft license?
A. To prevent the unauthorized use of open source software
B. To ensure that any modifications to the software are also released under the same license
C. To restrict the use of the software
D. To allow commercial use of the software without any restrictions

5. What is the difference between open hardware and open source software?
A. Open hardware refers to the physical components of a computer, while open source software refers to the code that runs on those components
B. Open hardware and open source software are essentially the same thing
C. Open hardware refers to software that is publicly available and can be modified by anyone, while open source software refers to software that is free to use but cannot be modified
D. Open hardware refers to software that is free to use but cannot be modified, while open source software refers to software that is publicly available and can be modified by anyone

6. Which of the following is not a benefit of using open source software?
A. Lower costs
B. Greater flexibility
C. Greater security
D. Greater ease of use

7. What is the difference between a permissive license and a copyleft license?
A. A permissive license allows modifications to be made without any restrictions, while a copyleft license requires any modifications to the original software to also be released under the same license
B. A permissive license restricts the use of the software, while a copyleft license allows for broad use
C. A permissive license is only applicable to open source hardware, while a copyleft license is only applicable to open source software
D. There is no difference between a permissive license and a copyleft license

8. What is the purpose of the Affero General Public License (AGPL)?
A. To restrict the use of open source software
B. To ensure that any modifications to the software are also released under the same license
C. To allow commercial use of open source software without any restrictions
D. To prevent others from profiting from the use of open source software

9. Which of the following is not a type of open source license?
A. Proprietary License
B. GNU General Public License
C. MIT License
D. Apache License

10. Which open source license requires any modifications to the original software to also be released under the same license?
A. GNU General Public License
B. Apache License
C. MIT License
D. Creative Commons License

ARGO UML

What is Argo UML?
i. A programming language
ii. A design tool
iii. A version control system
iv. A database management system

2. What is the purpose of using Argo UML?
i. To write code
ii. To design and visualize software systems
iii. To test software applications
iv. To manage software projects

3. What are the main features of Argo UML?
i. Code editing and debugging
ii. Collaboration and version control
iii. UML modeling and diagramming
iv. Database integration and reporting

4. Which of the following diagrams can be created using Argo UML?

i. Class diagram
ii. Use case diagram
iii. Sequence diagram
iv. All of the above

5. How can you add a class to a class diagram in Argo UML?
i. Drag and drop the class from the toolbar
ii. Right-click on the diagram and select "Add class"
iii. Type the class name in the text box and press enter
iv. All of the above

6. What is the purpose of creating a use case diagram?
i. To visualize the flow of control in a system
ii. To define the functionality of a system from a user's perspective
iii. To document the implementation details of a system
iv. To model the behavior of a system

7. How can you add an actor to a use case diagram in Argo UML?
i. Drag and drop the actor from the toolbar
ii. Right-click on the diagram and select "Add actor"
iii. Type the actor name in the text box and press enter
iv. All of the above

8. What is the purpose of creating a sequence diagram?
i. To visualize the interaction between objects in a system
ii. To define the components of a system
iii. To document the testing plan of a system
iv. To model the requirements of a system

9. How can you add an object to a sequence diagram in Argo UML?
i. Drag and drop the object from the toolbar
ii. Right-click on the diagram and select "Add object"
iii. Type the object name in the text box and press enter
iv. All of the above

10. How can you export a diagram from Argo UML?
i. Right-click on the diagram and select "Export"
ii. Click on "File" > "Export" and select the diagram format
iii. Use the keyboard shortcut Ctrl + E
iv. All of the above

Answers:
1. b. A design tool
2. b. To design and visualize software systems
3. c. UML modeling and diagramming
4. d. All of the above
5. d. All of the above
6. b. To define the functionality of a system from a user's perspective
7. d. All of the above
8. a. To visualize the interaction between objects in a system
9. d. All of the above

10. b. Click on "File" > "Export" and select the diagram format