Practical 1) Basic understanding on open and free source software .

A) Open-source software-

Open source software (OSS) is software that is distributed with its source code, making it available for use, modification, and distribution with its original rights.

Source code is the part of software that most computer users don't ever see; it's the code computer programmers manipulate to control how a program or application behaves. Programmers who have access to source code can change a program by adding to it, changing it, or fixing parts of it that aren't working properly

OSS typically includes a license that allows programmers to modify the software to best fit their needs and control how the software can be distributed.

How does OOS works? –

Open source code is usually stored in a public repository and shared publicly. Anyone can access the repository to use the code independently or contribute improvements to the design and functionality of the overall project.

OSS usually comes with a distribution license. This license includes terms that define how developers can use, study, modify, and most importantly, distribute the software.

Examples –

1. GNU/Linux
2. Mozilla Firefox
3. VLC media player
4. SugarCRM
5. GIMP
6. VNC
7. Apache web server
8. LibreOffice
9. jQuery

Free-source software –

"Free software" means software that respects users' freedom and community. Roughly, it means that the users have the freedom to run, copy, distribute, study, change and improve the software.

The term "free software" is sometimes misunderstood—it has nothing to do with price. It is about freedom.

In the 1950s and 1960s, computer operating software and compilers were delivered as a part of hardware purchases without separate fees. At the time, source code, the human-readable form of software, was generally distributed with the software providing the ability to fix bugs or add new functions.

Universities were early adopters of computing technology. Many of the modifications developed by universities were openly shared, in keeping with the academic principles of sharing knowledge, and organizations sprung up to facilitate sharing. As large-scale operating systems matured, fewer organizations allowed modifications to the operating software, and eventually such operating systems were closed to modification. However, utilities and other added-function applications are still shared and new organizations have been formed to promote the sharing of software.

Example –

- Adobe Reader.
- Audacity.
- ImgBurn.
- Recuva.
- Skype.
- Team Viewer.
- Yahoo Messenger.

Deference between open software and free software –

Free source software	Open source software
Software is an important part of people's lives.	Software are just software. There are no ethics directly associated to it.
Software freedom translates to social freedom	Ethics are to be associated to the people not to the software.

Freedom is a value that is more important than any economical advantage.	Freedom is not an absolute concept. Freedom should be allowed, not imposed.
he Free Software Directory maintains a large database of free-software packages.	Prime examples of open-source products are the Apache HTTP Server, the e-commerce platform.
the GNU Compiler Collection and C library; the MySQL relational database; the Apache web server; and the Sendmail mail transport. agent.	internet browsers Mozilla Firefox and Chromium (the project where the vast majority of development of the freeware.