

**TITLE - BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE**

**a) Describe open- source software with example:**

- i. Open source software is a software where the source code is made publicly available.
- ii. This means that users can modify software to suit their needs.
- iii. Source code is released under the terms of a software license and depending on the license terms, others may download, modify, and publish their version back to the community.

**Examples:**

**PHP:**

- i. It is a software development language used for creating websites and other digital platforms.
- ii. It is fast and flexible and powers some of the most popular websites around the globe including Slack and Spotify.
- iii. It can collect data to a file, anyone can send data, return data to the users through emails.

**GIMP:**

- i. GIMP is another best open source software which is Photo editing tool.
- ii. It offers similar features like some of the expensive tools on the market including various filters and effects, yet it is free.
- iii. It is available across different platforms including Windows and Linux and it has different 3d party plugins and customization options.

**Ruby on Rails:**

- i. It is most popular open source software and is built with the Ruby programming language.
- ii. It is also known as an MVC (model-view-controller) full-stack framework and is considered the revolution in the programming world.
- iii. Companies like GitHub, Shopify, Ask.fm, Kickstarter, Scribd, SoundCloud leverage ruby on Rails.

**b) Describe Free software with Example:**

- i. Free software is computer software distributed under terms that allow users to run the software for any purpose as well as to study.
- ii. Free software means software that respects users freedom and community.
- iii. It means that users have the freedom to run, copy, distribute, study, change and improve the software.
- iv. In free software license is not required, and features are free.

**Examples:**

**Mozilla Firefox:**

- i. It is a customizable internet browser and free open source software.
- ii. It offers thousands of plugins that are accessible with single click of your mouse.
- iii. It is available for Android, iOS, Windows and Linux.
- iv. According to CNET, Mozilla reshaped the technology industry and fanned the flames of open source software that changed the way social networks and operating systems function.

**VLC Media Player:**

- i. It is one of the most popular open source software and it is free.
- ii. This multimedia player is used for video, media and audio files and it play discs, webcams, streams and devices.
- iii. It allows you to optimize your audio and video files for particular hardware configuration and also offers a plethora of extensions and skins which allows you to create customized designs.

**LibreOffice:**

- i. It is free and open source office productivity software suite, a project of The Document Foundation(TDF).
- ii. It consists of programs for word processing, creating and editing of spreadsheet, slideshows, diagrams and drawings, working with databases, and composing mathematical formulae.
- iii. It is available in 115 languages.
- iv. It is available for Microsoft windows, macOS and Linux.

c) **Difference between Free and Open-Source Software:**

Free Source Software	Open Source Software
i. Free software is Open Source Software.	i. Open Source software may not necessarily be Free Software.
ii. Free software doesn't allow the coder to have more control over his program.	ii. Open Source allows the coder more control over his program.
iii. Free software cannot work with other proprietary software.	iii. Open Source software can work with other proprietary software.
iv. Free software tends to mean that the License permits, at any rate, the accompanying utilize the product for any reason.	iv. Open Source software tends to mean the License may not permits changes to be dispersed and may forestall unmodified dissemination too.
v. <b>GNU Public License:</b> viral, ensuring. Openness of code in perpetuity.	v. <b>BSD- Style License:</b> not placing any restrictions on use of software.

