CHAPTER 1

**Theory Questions**

1. **What is PHP?** PHP (Hypertext Preprocessor) is a server-side scripting language designed primarily for web development but also used as a general-purpose programming language.
2. **State some features of the PHP Language.**
   * **Open Source:** PHP is free to use and has a large community supporting it.
   * **Cross-Platform:** It can run on various operating systems, including Windows, Linux, and macOS.
   * **Database Support:** It supports multiple databases like MySQL, PostgreSQL, SQLite, etc.
   * **Simple Syntax:** Easy to learn and use, even for beginners.
   * **Embedded within HTML:** You can embed PHP code directly into HTML files.
3. **Write names most commonly of Web Server.**
   * Apache
   * Nginx
   * Microsoft Internet Information Services (IIS)
   * LiteSpeed
4. **What are the reasons behind the development of PHP language?** PHP was developed to make web development easier by enabling developers to create dynamic web pages
5. **Why do we have to learn PHP programming?** Learning PHP can be beneficial because:
   * It is widely used for web development, particularly for server-side scripting.
   * Many Content Management Systems (CMS) like WordPress, Joomla, and Drupal are built on PHP.
   * It offers simplicity and ease of learning, making it accessible for beginners in web development.
6. **What do you understand by the term “Web Server”?** A web server is a software that serves web pages to clients (browsers) over the Internet
7. **What is XAMPP?** XAMPP is a free and open-source cross-platform web server solution stack package. It contains Apache (the web server), MySQL (the database), and interpreters for PHP and Perl, which makes it easy to set up a local server environment for development purposes.
8. **Define protocols.** Protocols are standardized rules and methods used for communication between different devices over a network. Examples include HTTP, FTP, and IP.
9. **What do you mean by HTTP and IP protocols?**
   * **HTTP (Hypertext Transfer Protocol):** The protocol used to transfer web pages from a web server to a browser. It defines how messages are formatted and transmitted.
   * **IP (Internet Protocol):** protocol responsible for addressing and routing data packets between devices on a network, ensuring that data reaches the correct destination.
10. **Explain why you do not see any PHP code when you view the source code of a PHP page in the browser.** PHP is a server-side language, meaning it is processed on the server before being sent to the browser. The server executes the PHP code and generates HTML, which is then sent to the browser. Thus, users only see the resulting HTML, not the original PHP code.
11. **Define the term “embedded language”.** An embedded language is a programming language that can be included directly within another language.
12. **What do you mean by scripting languages?** Scripting languages are programming languages used to write scripts that automate tasks.

HOW TO INSTALL XAMMP SERVER

**Steps to Install XAMPP**

1. **Download XAMPP:**
   * Go to [Apache Friends](https://www.apachefriends.org/index.html).
   * Click on the download link and choose the appropriate XAMPP package for your system. Save the installer file.
2. **Run the Installer:**
   * After downloading, open the installer file. If an older version of XAMPP is installed, you may be asked to uninstall it first.
3. **Begin Installation:**
   * Click "OK" on the initial splash screen and then "Next" to proceed.
4. **Select Components:**
   * Choose the components you want to install (e.g., Apache, MySQL, PHP, FileZilla, phpMyAdmin).
   * Click "Next."
5. **Choose Installation Folder:**
   * Select the installation directory (default is C:\xampp).
   * Click "Next."
6. **Optional Bitnami Setup:**
   * If you want to install additional apps like WordPress or Joomla, check the box. Otherwise, leave it unchecked and click "Next."
7. **Start Installation:**
   * Click "Next" again to begin the installation. Wait for the process to complete.
8. **Complete Installation:**
   * Once done, click "Finish." You may be prompted to choose a language. Select "English" and click "Save."
9. **Launch XAMPP Control Panel:**
   * Open the XAMPP Control Panel to start/stop services like Apache and MySQL.
   * Start Apache and MySQL by clicking the "Start" buttons.
10. **Verify Installation:**
    * Open a web browser, type localhost in the address bar, and press Enter. If you see the XAMPP dashboard, the installation is successful.