Q1. What is constructor in python.

Q2. What is destructor in python.

Q3. Explain the magic method.

Ans.

Q4. Differentiate between old class style and new class style.

Ans.

Q5. Differentiate between list and tuples (terms of memory).

Ans.

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| Python Lists | Python | Tuples |
| 1 | List are mutable | Tuples are immutable | Tuples are immutable |
| 2 | Iterations are time-consuming | Iterations are comparatively Faster | Iterations are comparatively Faster |
| 3 | Inserting and deleting items is easier with a list. | Accessing the elements is best accomplished with a tuple data type. | Accessing the elements is best accomplished with a tuple data type. |
| 4 | Lists consume more memory | Tuple consumes less than the list | Tuple consumes less than the list |
| 5 | Lists have several built-in methods. | A tuple does not have many built-in methods because of immutability | A tuple does not have many built-in methods because of immutability |
| 6 | A unexpected change or error is more likely to occur in a list. | In a tuple, changes and errors don't usually occur because of immutability. | In a tuple, changes and errors don't usually occur because of immutability. |

Q6. Write a note on session vs cookies.

Ans.

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| **Session** | **Cookies** |
| A session stores the variables and their values within a file in a temporary directory on the server. | Cookies are stored on the user's computer as a text file. |
| The session ends when the user logout from the application or closes his web browser. | Cookies end on the lifetime set by the user. |
| It can store an unlimited amount of data. | It can store only limited data. |
| We can store as much data as we want within a session, but there is a maximum memory limit, which a script can use at one time, and it is 128 MB. | The maximum size of the browser's cookies is 4 KB. |
| We need to call the session\_start() function to start the session. | We don't need to call a function to start a cookie as it is stored within the local computer. |
| In PHP, to set a session data, the $\_SESSION global variable is used. | In PHP, to get the data from cookies, the $\_COOKIE global variable is used. |
| In PHP, to destroy or remove the data stored within a session, we can use the session\_destroy() function, and to unset a specific variable, we can use the unset() function. | We can set an expiration date to delete the cookie's data. It will automatically delete the data at that specific time. There is no particular function to remove the data. |
| Sessions are more secured compared to cookies, as they save data in encrypted form. | Cookies are not secure, as data is stored in a text file, and if any unauthorized user gets access to our system, he can temper the data. |

Q7. Where is a cookie stored in the browser.

Ans. They are stored in **random access memory** and are never written to the hard drive.

Q8. Write the main difference between https and http.

Ans.

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| **HTTP** | **HTTPS** |
| The full form of HTTP is the Hypertext Transfer Protocol. | The full form of HTTPS is Hypertext Transfer Protocol Secure. |
| It is written in the address bar as http://. | It is written in the address bar as https://. |
| The HTTP transmits the data over port number 80. | The HTTPS transmits the data over port number 443. |
| It is unsecured as the plain text is sent, which can be accessible by the hackers. | It is secure as it sends the encrypted data which hackers cannot understand. |
| It is mainly used for those websites that provide information like blog writing. | It is a secure protocol, so it is used for those websites that require to transmit the bank account details or credit card numbers. |
| It is an application layer protocol. | It is a transport layer protocol. |
| It does not use SSL. | It uses SSL that provides the encryption of the data. |
| Google does not give the preference to the HTTP websites. | Google gives preferences to the HTTPS as HTTPS websites are secure websites. |
| The page loading speed is fast. | The page loading speed is slow as compared to HTTP because of the additional feature that it supports, i.e., security. |