

### **1) What is input and Output Stream in Java?**

**Ans:** A stream can be defined as a sequence of data. The InputStream is used to read data from a source and the OutputStream is used for writing data to a destination.

### **2) What are the methods of OutputStream?**

- **Ans:** write() - writes the specified byte to the Output Stream .
- write(byte[] array)- writes the bytes from the specified array to the Output stream.
- flush() - forces to write all data present in the output stream to the destination.
- close() - closes the output stream.

### **3) What is serialisation in Java?**

**Ans:** Serialization is the process of converting an object into a stream of bytes to transfer it over a network or to store it in a file or database. In Java, serialisation is done by implementing the Serializable interface.

### **4) What is the Serializable interface in Java ?**

**Ans:** The Serializable interface in Java is a marker interface that has no methods. It is used to mark classes that can be serialised, meaning their object instances can be converted into a stream of bytes.

### **5) What is deserialization in Java?**

**Ans:** Deserialization is the process of converting a stream of bytes into an object instance. This is done after an object has been serailized .

### **6) How is serialisation achieved in Java?**

**Ans:** Serialization is achieved in Java by implementing the Serializable interface. When an object is Serialised, it's State is converting into a stream of bytes, which can be transferred over a network or stored in a file or database.

### **7) How is deserialization achieved in Java?**

**Ans:** Deserialization is achieved in Java by reading a stream of bytes and using them to recreate the original object instance. This is done by calling the readObject() method of an ObjectInputStream instance.

### **8) How can you avoid certain member variables of class from getting Serialized?**

**Ans:** Mark member variables as static or transient, and those member variables will no more be a part of Serialization.

### **9) What classes are available in the Java IO File Classes API?**

**Ans:** The following classes are available in the Java IO API and are important to work with files in Java.

- File
- RandomAccessFile
- FileInputStream

- FileReader
- FileOutputStream
- FileWriter

**10)What is the difference between Externalizable and Serialization interface?**

**Ans:**

	<b>Serializable</b>	<b>Externalizable</b>
<b>Methods</b>	It is a marker interface and it doesn't have any method.	It's not a marker interface.  It has methods called writeExternal() and readExternal()
<b>Default Serialization Process</b>	YES, Serializable provides it's own default serialisation process, we just need to implement a Serializable interface.	NO, we need to override writeExternal() and readExternal() for the serialisation process to happen
<b>Customise Serialisation process</b>	We can customise default serialisation process by defining following methods in our class> readObject() and writeObject()	Serialization Process is completely customised  We need to override the Externalizable interface's writeExternal() and readExternal() methods.
<b>Control over</b>	It provides less control	Externalizable provides.
<b>Serialization</b>	Over Serialization as it's mandatory to define readObject() and writeObject() methods.	You have great control over the serailization process as it is important to override withExternal() and readExternal() methods.
<b>Constructor call during deserialization</b>	Constructor is not called during deserialization.	Constructor is called during deserialization