**1.What is XML?**

**Answer: XML stands for Extensible Markup language. XML is a markup language much like HTML that was designed to carry data but not to display data . XML tags are not predefined and we must define our own tags. XML is degined to be self-descriptive.**

**2.Describe the differences between XML and HTML?**

**Answer: XML is not a replacement for HTML. XML and HTML were designed to transport and store data with different goals:**

**XML was designed to transport and store data with focus on what data is. XML is about carrying information.**

**HTML was designed to display data with focus on how data looks. HTML is about displaying information.**

**3.What is an XML namespace?**

**Answer: XML Namespaces provide a method to avoid element name conflicts. An XML namespace is a collection of element and attribute names that is identified by a URI. A namespace is associated with a particular element in a document. XML namespace declaration looks like:**

**<sketcher:sketch xmlns:sketcher=”http://www.wrox.com/dtds/sketches”>**

**A namespace declaration uses a special reserved attribute name, xmlns, within a element.**

**4.What is DTD?**

**Answer: DTD means document type declaration. A document type declaration specifying and external document Type definition(DTD) that identifies markup declarations for the elements used in the body of the document or explicit markup declaration or both.**

**5.What is XML Schema?**

**Answer: XML schema language for defining the content and structure of sets format of data within an XML document it provides a way for us to define and create XML documents that are inherently more precise and therefore safer than documents described by a DTD.**

**6.What is document object model?**

**Answer: The Document object Model(DOM) is an application Program Interface(API). Document object Model represent the HTML & XML page. The DOM used a mechanism that is completely different to simple API for XML(SAX).**

**7.What is a Parser?**

**Answer: A *parser* is a piece of program that takes a physical representation of some data and converts it into an in-memory form for the program as a whole to use. Parsers are used everywhere in software. An *XML Parser* is a parser that is designed to read XML and create a way for programs to use XML.**

**8.What is Well Formed XML Document?**

**Answer: When an XML document is said to be well-formed, it just means that it conforms to the rules for writing XML as defined by the XML specification.**

**The rules for a document to be well-formed are as follows:**

**a. If the XML declaration appears in the prolog, it must include the XML version and May be used character encoding, standalone respectively.**

**b. If the document type declaration appears in the prolog, the DOCTYPE name must match that of the root element, and must be compliant with DTD.**

**c. The body of the document must contain root element, which contains all the other elements, and an instance of the root element must not appear in the content of another element. All elements must be properly nested.**

**9.What is Java RMI?**

**Answer: The Java Remote Method Invocation (RMI) system allows an object running in one Java virtual machine to invoke methods on an object running in another Java virtual machine. RMI provides for remote communication between programs written in the Java programming language.**

**10.Why is XML such an important development?**

**Answer: XML is now as important for the Web as HTML was to the foundation of the Web. XML allows the flexible development of user-defined document types. It provides a robust, non-proprietary, persistent, and verifiable file format for the storage and transmission of text and data both on and off the Web; and it removes the more complex options of SGML, making it easier to program for.**

**JAVA VS JAVASCRIPT**

|  |  |
| --- | --- |
| **JAVA** | **JAVASCRIPT** |
| **1. Server side scripting language.** | **1. Client side scripting language.** |
| **2. Object oriented.** | **2. Object based.** |
| **3. Compiled language.** | **3. Interpreted language.** |
| **4. Product of SUN Microsystems.** | **4. Product of Netscape.** |
| **5. Strong typed.** | **5. Weakly typed or un typed.** |
| **6. Java can stand on its own** | **6. JavaScript must be placed inside an HTML document.** |
| **7. Java is a much larger and more complicated language that creates "standalone" applications. A Java "applet" (so-called because it is a little application) is a fully contained program.** | **7. JavaScript is text that is fed into a browser that can read it and then is enacted by the browser.** |
| **8. It can be used to create anything from small Web page events to entire databases to full browsers.** | **8. It is much easier and more robust than Java. It allows for fast creation of Web page events.** |
| **9. Print Syntax:**  **System.out.print(“some text”);** | **9. Print Syntax:**  **document.write(“some text”);** |
| **10. Semicolon (;) is mandatory.** | **10. Semicolon(;) is optional.** |