1. **Write the HTML coding to print "WELCOME"**

```
<html>
<head>
<title>Sample program</title>
</head>
<body>
<b>WELCOME </b>
</body>
</html>
```

2. **Classify <LINK> tag? Give an example.**

A. The `<link>` tag defines the relationship between the current document and an external resource.

B. The `<link>` tag is most often used to link to external style sheets or to add a favicon to your website.

C. The `<link>` element is an empty element, it contains attributes only.

Ex:

```
<head>
<link rel="stylesheet" href="styles.css">
</head>
```

3. **Write some advantages of using XML**

- A. XML uses human, not computer language
- XML is readable and understandable, even by novices, and no more difficult to code than HTML.
- XML is completely compatible with Java and 100% portable.
- Any application that can process XML can use your information, regardless of platform.
- XML is extendable.

4. **List out the <FORM >tag attributes**

Action: Attribute defines the action to be performed when the form is submitted. Usually, the form data is sent to a file on the server when the user clicks on the submit button.

Method: Specifies the HTTP method to be used when submitting the form data. The form-data can be sent as URL variables (with method="get") or as http post transaction (with method="post").

Target: Specifies where to display the response that is received after submitting the form.

Novalidate: It is a Boolean attribute. When present, it specifies that the form-data (input) should not be validated when submitted.

5. **Differentiate the HTML and XML**

HTML	XML
HTML stands for Hyper Text Markup Language.	XML stands for extensible Markup Language.
HTML is static in nature.	XML is dynamic in nature.
HTML is a markup language.	XML provides framework to define markup languages.
HTML can ignore small errors.	XML does not allow errors.
HTML is not Case sensitive.	XML is Case sensitive.
HTML tags are predefined tags.	XML tags are user defined tags.
There are limited number of tags in HTML.	XML tags are extensible.
HTML does not preserve white spaces.	White space can be preserved in XML.
HTML tags are used for displaying the data.	XML tags are used for describing the data not for displaying.

In HTML, closing tags are not necessary.	In XML, closing tags are necessary.
HTML is used to display the data.	XML is used to store data.

6. Define XML schemas.

A. An XML Schema describes the structure of an XML document.

The XML Schema language is also referred to as XML Schema Definition (XSD).

7. Define XML parsers.

A. XML parser is a software library or a package that provides interface for client applications to work with XML documents.

It checks for proper format of the XML document and may also validate the XML documents. Modern day browsers have built-in XML parsers.

The goal of a parser is to transform xml into a readable code.

8. Write short note on DOM.

A. A DOM document is an object which contains all the information of an XML document. The DOM Parser implements a DOM API. This API is very simple to use.

A DOM Parser creates an internal structure in memory which is a DOM document object and the client applications get information of the original XML document by invoking methods on this document object.

DOM Parser has a tree based structure.

9. Define SAX.

A. SAX is a programming interface for processing XML files based on events. The DOM's counterpart, SAX, has a very different way of reading XML code. The Java implementation of SAX is regarded as the de-facto standard. SAX processes documents state-independently, in contrast to DOM which is used for state-dependent processing of XML documents.

10. Write the syntax to create an XSL.

Step 1: Create XSLT document

Step 2: Link the XSLT Document to the XML Document

Step 3: View the XML Document in Internet Explorer.

11. Define Xforms and Xhtml.

XForms is an XML format used for collecting inputs from web forms. XForms was designed to be the next generation of HTML / XHTML forms.
XForms uses XML to create input forms on the Web.

XHTML stands for E**X**tensible **H**yper**T**ext **M**arkup **L**anguage

XHTML is a stricter, more XML-based version of HTML

XHTML is HTML defined as an XML application

XHTML is supported by all major browsers

12. Define XSLT.

A. XSL has two independent languages:

The XSL Transformation Language (XSLT)
The XSL Formatting Object Language (XSL-FO)

XSLT is used to convert an XML document to another format.

- XSL-FO provides a way of describing the presentation of an XML document.
- Both technologies use a supporting XML technology, XPath.
- XPathdefines a standard mechanism for accessing elements within a document.

13. Write short note on XLINK.

A. Xlink

- XLink is used to create hyperlinks within XML documents
- Any element in an XML document can behave as a link
- With XLink, the links can be defined outside the linked files

XLink Syntax

- In HTML, the <a> element defines a hyperlink. However, this is not how it works in XML. In XML documents, you can use whatever element names you want - therefore it is impossible for browsers to predict what link elements will be called in XML documents.

14. Define XPATH.

- A. XPath is used to address (select) parts of documents using path expressions
- A path expression is a sequence of steps separated by "/"
- Think of file names in a directory hierarchy
- Result of path expression: set of values that along with their containing elements/attributes match the specified path

15. Write short note on XQuery.

- A. XQuery is *the* language for querying XML data
- XQuery for XML is like SQL for databases
- XQuery is built on XPath expressions
- XQuery is supported by all major databases
- XQuery is a W3C Recommendation
- Allows to formulate more general queries than XPath
- General expression: FLWOR expression
- XQuery is to XML what SQL is to databases.
- XQuery was designed to query XML data.