1. What is JSP?

It is a server- side technology that does all the processing at server.

JSP is used for creating dynamic web applications, using java as programming language.

1. A JSP page transformed into JAVA Servlet.
2. Which component of tomcat is used to execute JSP pages?

JASPER

1. What are JSP scripting elements?
   1. Scriptlet tag
   2. expression tag
   3. declaration tag
2. List out the Implicit Objects?

out

request

response

config

application

1. Define Directives.

The elements of a JSP source code that guide the web container on how to translate the JSP page into its respective servlet.

1. What is a Scriptlet?

It is used to contain any code fragment that is valid for scripting language used in page.

It allows you to write java code inside JSP page.

1. Write down the various attributes for the page directives in JSP.

contentType

errorPage

import

info

extends

1. What is a JSP Expression?

It evaluates the expression placed in it, converts the result into String and send the result back to the client through [response object](https://beginnersbook.com/2013/11/jsp-implicit-object-response-with-examples/).

1. Give an example of declaring a variable in JSP?

<html>

<body>

<%!

int cube (int n) {

return n\*n\*n;

}

%>

<%= "Cube of 3 is:" +cube (3) %>

</body>

</html>

1. <% java source code%> format is used for scriptlets?
2. Which method can be used to read a form parameter in JSP?

getParameter()

1. What are the problems with Servlet?

1.processing request & generating response are both handled by single servlet class.

2.writing complex business logic makes application difficult to understand.

1. Write a JSP program to display simple message?

<HTML>

<HEAD>

<TITLE>MESSAGE</TITLE>

</HEAD>

<BODY>

<% out .print ("Hello, Sample JSP code");%>

</BODY>

</HTML>

1. Is servlet container required to process JSP pages?

Yes.

1. Which JSP tag is used to pass control from one page to other?

< jsp : forward>

1. Which object is used to pass data from one page to other?

Session.

1. Write the use of sendRedirect() method?

It is used to redirect response to another resource, it may be servlet, jsp or html file.

1. What is the use of include directive?

It is used to include a file during the translation phase.

1. What are the JSP standard Actions?

< jsp : include>

< jsp : forward>

< jsp : param>,

< jsp : useBean>

1. What is the use of < jsp : useBean> Action?

This action is useful when you want to use Beans in a JSP page.

Through this tag you can easily invoke a bean.

1. What is JSP and why do we need it?

It is a technology that helps software developers to create dynamically generated web pages based on HTML, XML or other document types.

To overcome the difficulties of writing code in servlets.

1. MVC stands for Model View Controller.

UNIT 5 : 1 MARK

1. What is syntactic Web?

It is defined as the web where information presentation is carried out by computers, and the interpretation and identification of relevant information is delegated to human beings.

1. What is information overload?

It occurs when the amount of input to a system exceeds its processing capacity.

1. What are the limitations of search engine in syntactic web?

1.They rank websites according to concept of intrinsic authority which was flawed.

2.They filter results according to information given by particular user that provides accurate reflection of user’s real interests.

1. What is semantic web?

It is not a separate Web but an extension of the current one, in which information is given well-defined meaning, better enabling computers and people to work in cooperation.

1. Who introduced semantic web?

Berners-Lee in 2001.

1. What are different semantic web technologies?

RDF, SPARQL, OWL, and SKOS

1. RDF stands Resource Description Framework.
2. OWL stands Web Ontology Language.
3. SPARQL stands Simple Protocol And RDF Query Language.
4. What is the purpose of RDF?

It provides a standard model to exchange the data on the web.

1. What is the purpose of OWL?

To represent rich and complex knowledge about things, groups of things, and relations between things.

1. What is the purpose of SPARQL?

It allows users to write queries against key-value data or data that follow RDF specification of W3C.

1. Write the semantic web characteristics?
   1. Use URI (Uniform resource Identifiers) addressing.
   2. Use protocols that a have a small and universally understood set of commands (like HTTP: Hypertext Transfer Protocol)
   3. Be decentralized (like the www)
   4. Function on a large scale.
2. What are the advantages of semantic web?

1.The data will not be lost in servers.

2.Increases communication.

3.Better search results are found that minimizes time & effort.

4.Increase information linking.

1. What are the drawbacks of semantic web?

1.It is very complicated.

2.Less advanced computers can’t able to handle it.

3.Technology is not entirely ready for it yet.

4.Lot of money has been spent for research on it.

1. What is metadata?

A set of data that describes and gives information about other data.

1. What are the application of semantic web?

1.Semantic web server attaches to existing system without affecting its operation.

2.This is machine understandable information about human understandable content of document representing set of facts.

3.Providing decision making support.

1. What are the types of relationships in thesauri?

Hierarchical, Associative, Equivalence

1. Write the difference between glossaries and thesauri?

Glossary tells the position of the word searching for.

Thesauri tells the word in different ways with same meaning.

1. What is ontology?

It is an explicit specification of a conceptualization.

1. What is taxonomy?

The practice and science of classification of things or concepts in a hierarchical structure, organized by generalization‐specialization relationships.

1. What are thesauri?

A thesaurus contains a set of relationships among concepts, organized in a taxonomic way.

1. Write the different areas in computer science where ontologies have been used?

Artificial intelligence ,Software engineering ,Semantic web.

1. What are web Ontology Description Languages?

1.Resource Description Framework (RDF)

2.Simple HTML Ontology Extension (SHOE)

3.Ontology Inference Layer (OIL)

UNIT 4 : 10 MARK

1. Describe various directives and scripting elements in JSP?
2. Develop a program to validate username and password that are stored in Database table using JSP.
3. Explain about Implicit objects in JSP with examples?
4. A) what are the limitations of Servlets? How JSP overcomes these problems?

b) Explain the structure of JSP?

1. Explain with example how to design JSP application with MVC.
2. Explain with an example how data is shared among JSP pages using session?
3. a) What is JSP? Explain about JSP processing?

b) Develop a JSP program to read data from html form and store the data into database.

UNIT 5 :10 MARK

1. What is Semantic web and how will it work? Explain.
2. a) Explain about Ontology in computer Science with example?

b) Explain about taxonomies versus ontology and thesauri versus ontologies?

1. Defining the term Ontology. Explain about Classifying Ontologies?