TCS 505

Roll No.

ODD SEMESTER EXAMINATION, 2019-20

B.Tech (CSE, 5th Semester)

Advance Java Programming

Time: 3:00 hrs.

Max. Marks: 100

Total no. of printed pages: 2

Note: All questions are compulsory.

Q.1. Attempt any four. All question carry equal marks.   4*5 = (20 marks)

a) Explain what are JSP Action Tag.
b) Explain about Filter and what is the use of filter.
c) Explain ServletConfig using an example.
d) Explain about Listener.
e) Explain what is JSTL?
f) Explain Inheritence and types of inheritance?

Section B

Q.2. Attempt any four. All question carry equal marks.   4*5 = (20 marks)

a) What is custom tag in JSP?
b) What is Enterprise Application Architecture?
c) What is a web application and what is its directory structure?
d) What is JDBC? Explain the use of different types of Statement with their advantages and disadvantages.
e) Explain what do you mean by RequestDispatcher.
f) What is the difference between the Reader/Writer class hierarchy and the Input Stream/Output Stream class hierarchy?

Q. 3. Attempt any four. All question carry equal marks.   2*10 = (20 marks)

a) Define Thread and Multithreading. Explain the states in the lifecycle of a thread in Java.
b) What is a Stream in Java? What are the characteristics of a stream? Discuss the Input and Output Stream hierarchy in Java.
c) What is Serialization? What are its advantages? Explain serialization and deserialization with the help of Java code.

Q.4. Attempt any two. All question carry equal marks.   2*10= (20 marks)

a) "Any java program that works with database has two parts, first part is the JDBC API and second part is the driver that does the actual work". Explain Both in Detail.
b) We use servlet-config.xml/struts.xml in a struts project but our web container only

c) What is a web application and what is its directory structure? Describe role of each directory in directory structure also; Write down all the necessary steps in deploying a web application on Tomcat Server.

Q.5. Attempt any two. All question carry equal marks.   **2*10= (20 marks)**

a) What is JDBC? Explain the use of different types of Statement with their advantages and disadvantages.

b) Explain the Servlet life Cycle with all the function used for various phases. Write the servlet code to implement a counter to count the number of time a web page is refreshed and the value of the counter should print in decimal as well as in binary format. (As shown below).

c) Counter in Decimal	e) Counter in Binary
d) 5	f) 00000101

C) web.xml file is called the deployment descriptor for a dynamic web project. Give the reason. Write the java code to implement the following scenario. "A servlet will read the web.xml and fetch the values from init parameters. The fetched values will be displayed in tabular format on web page using a servlet i.e. MyServlet.java as shown below."

```
<init-param>
<param-name> id1 </param-name>
<param-value> 101 </param-value>
</init-param>

<init-param>
<param-name> name1 </param-name>
<param-value> Rohan </param-value>
</Init-param>

<init-param>
<param-name> Id2 </param-name>
<param-value> 102 </param-value>
</init-param>

<init-param>
<param-name> name2 </param-name>
<param-value> Sohan </param-value>
</init-param>
```

id	name
101	Rohan
102	Sohan

Web.xml   MyServlet.Java