

**B.TECH. SEMESTER – IV [CE]**  
**SUBJECT: (CE – 410) JAVA TECHNOLOGY**

**Examination** : **Third Sessional**  
**Date** : **28 / 03 / 2018**  
**Time** : **10:00 am to 11:15 am**

**Seat No** : CE-81  
**Day** : Wednesday  
**Max Marks** : 36

**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

**Q.1 Do as Directed**

- (a) How HQL is different from SQL? What is the biggest advantage of using HQL than SQL? [2]
- (b) What are the states of object in hibernate? [2]
- (c) Which activities would be addressed via a J2EE 1.4 container's data integrity mechanism? (Choose all that apply.) [2]
- A. Verifying that a specific user is allowed access to a specific HTML page.
  - B. Ensuring that an eavesdropper can't read an HTTP message being sent from the client to the container.
  - C. Verifying that a client making a request for a constrained JSP has the proper role credentials to access the JSP.
  - D. Ensuring that a hacker can't alter the contents of an HTTP message while it is in transit from the container to a client.
- (d) Explain role of building tools. List at least two building tools. [2]
- (e) Which SimpleTag mechanism will tell a jsp page to stop processing? [2]
- (f) Explain use of `<%@attribute %>` with respect to tag file. [2]

**Q.2 Answer the following questions (Any TWO)**

- (a) Explain `<security-constraint>` element in the deployment descriptor. [6]
- (b) Explain Hibernate architecture and its components using appropriate diagram. [6]
- (c) Write a java RMI program for Fibonacci service. Also write a client program which uses that service to get Fibonacci series up to n terms. [6]

**Q.3 Answer the following questions.**

- (a) Write a web based java application for demonstrating use of Classic custom tag. This application must contain following components. [6]
- Input.jsp: It is an input form, which takes a string from user and submit it to the capital.jsp.
  - capital.jsp: It is a scriptless jsp which invokes a classic tag capString to capitalize the input string. The input string is passed to the tag as body text.
  - CapitalStringHandler.java : It is a handler class for classic tag capString. It converts the input string to capital and prints the result to the user.
- (b) Which are different types of dependency injection and how spring handles it? [6]

**OR**

**Q.3 Answer the following questions**

- (a) Explain life cycle of custom tag and classic custom tag. [6]
- (b) Develop the web based application using classic custom tag for following requirement. [6]

Imagine you have a tag look like this

```
<table>
  <mytag:MovieTag>
    <tr><td>${movie}</td></tr>
  </mytag:MovieTag>
</table>
```

Imagine that tag handler has access to an array of String moviename and you wants to print one row for each movie name.