Examination
Date : **29 / 03 / 2017** **Day** : **Wednesday**
Time : **10:30 am to 11:45 am** **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) Give the similarities between Filter and Servlet. [2]

(b) Distinguish between doFilter() method of Filter and FilterChain interfaces. [2]

(c) Which four security concepts are required for Servlet security? Write them in the order in which they are checked. [2]

(d) State true or false and justify the answer: "A classic tag can have simple tag as a parent tag". [2]

(e) Explain SkipPageException. [2]

(f) Which is true about the lifecycle of a Simple tag? (Choose all that apply.) [2]

A. The **release** method is called after the **doTag** method.

B. The **setJspBody** method is always called before the **doTag** method.

C. The **setParent** and **setJspContext** methods are called immediately before the tag attributes are set.

D. The **JspFragment** of the tag body is invoked by the Container before the tag handler's **doTag** method is called. This value, a **BodyContent** object, is passed to the tag handler using the **setJspBody** method.

Q.2 Answer the following questions (Any TWO)

(a) The response generated by any page of the web application must appear in lowercase to the client. Write the code for all necessary files of this web application. [6]

(b) (i) What is Form Based authentication? Explain with necessary code. [3]

(ii) Write a filter to display the total request processing time for any web resource. [3]

(c) Write a web based java application that requires authentication for all jsp pages and WelcomeServlet requested by GET/POST method. Other resources do not require authentication. Use BASIC authentication. Also write the deployment descriptor. [6]

Q.3 Answer the following questions.

(a) Explain the all possible return values for classic tag (BodyTag) life-cycle methods with appropriate diagram [6]

(b) Write a java based web application for simple arithmetic calculator (i.e. +, -, *, /). All the calculations must be performed through simple custom tag called calculate where arguments and operator are passed as attributes to this tag. This application must contain following components. [6]

Input.jsp : which takes arguments and operator as input and submit it to calculate.jsp

Calculate.jsp : it calls the custom tag calculate with arguments and operator as attributes.

MyCalculator.java : it handles the simple custom tag calculate and prints the result.

Mytags.tld : it describe the simple custom tag calculate.

OR

Q.3 Answer the following questions

(a) Explain findAncestorWithClass(Tag from, java.lang.Class c) method. [2]

(b) Implement a tag file named showBook.tag, having an attribute books which is an ArrayList of book beans with two properties, name of the book and author name. When the tag is invoked, it displays each of the books with its name and author name. [4]

(c) Write tag handlers for following custom tag invocation. Assume that parent tag **Menu** is a classic custom tag and child tag **MenuItem** is a simple custom tag. The tag Menu prints all the MenuItems. [6]

```
<mine:Menu >
   <mine:MenuItem itemValue="Dogs" />
   <mine:MenuItem itemValue="Cats" />
   <mine:MenuItem itemValue="Horses" />
</mine:Menu>
```