



**VII SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)**

**END SEMESTER EXAMINATIONS, NOV/DEC 2016**

**SUBJECT: DEVELOPING ENTERPRISE APPLICATIONS USING JEE  
TECHNOLOGIES [CSE 427]**

**REVISED CREDIT SYSTEM  
(23/11/2016)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ Missing data may be suitably assumed.

- 1A.** Describe:  
i) JRE with a neat sketch    ii) Java ME platform    iii) JVM. **3M**
- 1B.** List any four differences between the HTTP request methods GET and POST. **2M**
- 1C.** Explain the Java EE5 container architecture with a neat diagram. **4M**
- 1D.** In what way, EAR packaging is different from that of the WAR. **1M**
- 2A.** Write about JDBC Type-2 driver. Give two advantages, two disadvantages, and an example for the same. **2M**
- 2B.** Discuss MVC architecture with the help of a neat diagram. **3M**
- 2C.** Write complete JDBC code for the following:  
i) To read CLOB values which were stored as a single entity in a table in a database and write them to a file.  
ii) For a function stored in database whose definition is as follows:  
create or replace function getBalanceF (acno number)  
return number as  
amt number;  
begin  
select bal into amt from bank where accno=acno;  
return amt;  
end; **5M**
- 3A.** Write the complete servlet code for the following scenario:  
➤ "Servlet1" generates a form that has a Text box and a submit button. Once a value is entered in the Text box and the submit button is clicked, Servlet1 has to dispatch the value to Servlet2.  
➤ Servlet2 has to dispatch this value (after concatenating the string "Servlet2" to the value sent by Servlet1) to Servlet3. Let's us denote this new value by symbol \$. Now Servlet3 finally has to generate a message "Servlet1 to Servlet2 to Servlet3 \$" in its response. **5M**

- 3B.** How session tracking can be done using cookies? Explain with an example program. **3M**
- 3C.** Draw the JSP model I and model II architectures. **2M**
- 4A.** Discuss the life cycle of stateless and stateful session beans with a neat diagram for each. **3M**
- 4B.** Write the bean code for the following scenario:  
 Scenario: The welcome JSP has 3 Text boxes (One for entering the principal amount (P), another for entering the number of years (N) and another for entering the rate of interest(R)) and a submit button. On clicking the submit button, the values entered are forwarded in the form of a message of the form M("P"+" "+"N"+" "+"R") to the JMS Queue. The bean code gets the P, N, R values from this message M in the queue, calculates the simple interest and the time M gets processed and stores the record (result, processed) in an ArrayList of suitable type. **4M**
- 4C.** For Q.4.B, write the JSP code. **3M**
- 5A.** What is tiles-plugin? What are the steps involved in its implementation. Discuss the steps with the help of a working program example. **5M**
- 5B.** Explain the struts2 architecture with a neat diagram. **3M**
- 5C.** Write short notes on:  
 i) Action interface.  
 ii) ActionSupport interface. **2M**
- 6A.** Elucidate <f:actionListener> and <f:convertNumber> tags with an example for each. **2M**
- 6B.** With a neat diagram, discuss the spring framework architecture. **4M**
- 6C.** Describe the following interfaces of Hibernate framework  
 i) Session.  
 ii) Configuration.  
 iii) Query.  
 iv) Transaction. **3M**
- 6D.** List 4 properties of HQL **1M**