



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

Reg. No.

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

MAKE-UP EXAMINATIONS, DEC 2016-JAN 2017

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

REVISED CREDIT SYSTEM

(26/12/2016)

Time: 3 Hours

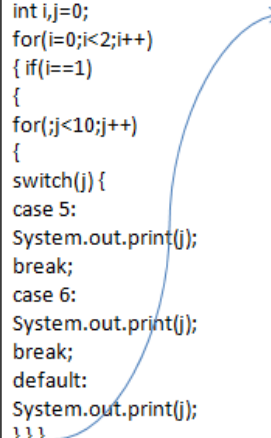
MAX. MARKS: 50

Instructions to Candidates:

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

- 1A.** Write down any 8 goals of enterprise applications and discuss each of them. **4M**
- 1B.** "In the development of a Java EE application, different people play different roles". Write short notes on 5 such roles. **3M**
- 1C.** Discuss 2-tier, 3-tier enterprise architecture types with the help of neat sketches. State an advantage for each of the types. **3M**
- 2A.** List down the various steps involved in using PreparedStatement. Show the process flow for the same with the help of a neat diagram. **3M**
- 2B.** Describe the batch update methods addBatch(), executeBatch(), clearBatch() with the help of an example program. Use PreparedStatement object in the example program. **3M**
- 2C.** Write short notes on:
i) ACID properties.
ii) Distributed, nested transaction.
iii) Setting and rolling back to a savepoint.
iv) Setting the auto commit attribute. **4M**
- 3A.** Consider the java code snippet:

```
int i,j=0;
for(i=0;i<2;i++)
{
    if(i==1)
    {
        for(;j<10;j++)
        {
            switch(j){
            case 0:
                System.out.print(j);
                break;
            case 5:
                System.out.print(j);
                break;
            case 6:
                System.out.print(j);
                break;
            default:
                System.out.print(j);
            }
        }
    }
}
```



```
else
{
    for(;j<5;j++)
    {
        switch(j){
        case 0:
            System.out.print(j);
            break;
        case 1:
            System.out.print(j);
            break;
        default:
            System.out.print(j);
        }
    }
}
```

- For the above java code snippet, write the equivalent JSTL code. **3M**
- 3B.** Discuss the lifecycle of a JSP page with a neat diagram. **3M**
- 3C.** Answer the following:
- i) Describe HTML aware servlets.
 - ii) Describe HTTP specific servlets.
 - iii) Define form data with an example. **4M**
- 4A.** Write about any 6 features of EJB 3.0 with an example for each. **3M**
- 4B.** Write 4 differences between stateless and stateful session beans. **2M**
- 4C.** Define entity bean. Explain the lifecycle of entity bean with a neat sketch. Write an example program to show the application of entity beans. **5M**
- 5A.** Why internationalization of applications is important? Explain how internalization of a struts 2 application is done. **4M**
- 5B.** Write short notes on:
- i) struts.xml with an example.
 - ii) struts.properties.
 - iii) ActionContext class with an example.
 - iv) web.xml in struts with an example. **4M**
- 5C.** Briefly discuss bundled validators. **2M**
- 6A.** Explain the following spring form tag library with an example for each
- i) form.
 - ii) radiobutton.
 - iii) password.
 - iv) select and option. **4M**
- 6B.** Discuss the JSF architecture with the help of a neat diagram. **4M**
- 6C.** Write down 4 characteristics of message driven beans. **2M**