CB   NIEME

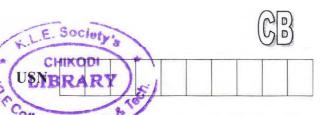15CS553

Fifth Semester B.E. Degree Examination, June/July 2019
Advanced Java and J2EE

Time: 3 hrs.   Max. Marks: 80

Note: *Answer any FIVE full questions, choosing*
ONE full question from each module.

Module-1

1   a. What are enumerations? How to use an enum constructor, instance variable and method? Explain with example.   **(06 Marks)**
    b.   What is Autoboxing? Write a Java program that demonstrates autoboxing/unboxing occurs inside expressions.   **(06 Marks)**
    c.   Demonstrate marker annotations with an example.   **(04 Marks)**

OR

2   a. Explain the various type wrappers used in Java.   **(05 Marks)**
    b. What is Annotation? Explain various retention policies for annotations in Java.   (05 **Marks)**
    c. Explain how to obtain annotations at run-time by use of reflection?   **(06 Marks)**

Module-2

3   a. Explain the following collection interfaces: i) Queue ii) SortedSet.   **(08 Marks)**
    h. Demonstrate ArrayList class for collections With an example: **(08 Marks)**

OR

4   a. Explain the following Map classes : i) HashMap ii) TreeMap.   **(08 Marks)**
    h. Define legacy class-vector. Write a Java program to demonstrate various vector operations.   **(08 Marks)**

Module-3

5   a. Explain the following string comparison methods with examples :
        i) equals( ) ii) regionMatches( ) iii) startsWith iv) endsWith( ).   **(08 Marks)**
    b. Explain the various string constructors used in Java with examples.   **(08 Marks)**

OR

6   a. Explain the following methods of StringBuffer class with examples :
        i) capacity( ) ii) reverse( ) iii) deleteCharAt( ) iv) charAt( ).   **(08 Marks)**
    h. How compareTo( ) method differs from compareTolgnoreCase( ) method? Write a Java program to sort an array of string in descending order by ignoring the case.   **(08 Marks)**

Module-4

7   a. Explain the life cycle of servlets.   **(04 Marks)**
    b.   How to handle HTTP GET requests and HTTP Post requests? Explain with examples.
                                                                                     (08 Marks)
    c.   Write a servlet program that demonstrates how to use session state.   **(04 Marks)**

OR

8 a. What is JSP? Explain the various types of JSP tags with examples. **(10 Marks)**

b. What is a cookie? Write a JSP program to create and read a cookie. **(06 Marks)**

Module-5

9 a. List and explain the different types ofJDBC drives types. **(06 Marks)**

b. Write a Java program to execute a database transaction. **(06 Marks)**

c, List and explain the three kinds of exceptions occurred in JDBC. **(04 Marks)**

OR

10 a. Explain the various steps ofJDBC with code snippets. **(08 Marks)**

b. Explain the following statement objects with examples

    i) PreparedStatement object

    ii) CallableStaternent object. **(08 Marks)**