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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)**
   b. Demonstrate ArrayList class for collections with an example.   **(08 Marks)**

OR

4 a. Explain the following Map classes : i) HashMap ii) TreeMap.   **(08 Marks)**
   b. 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)**
   b. How compareTo( ) method differs from compareToIgnoreCase( ) 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 of JDBC 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 of JDBC with code snippets.   (08 Marks)
   b. Explain the following statement objects with examples :
       i) PreparedStatement object
       ii) CallableStatement object.   (08 Marks)

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