17CS553

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Advanced Java and J2EE

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. What are Enumerations? Explain values( ) and valueOf( ) methods with an example program.   **(05 Marks)**
   b. What is Autoboxing? Write a java program that demonstrates how autoboxing and unboxing takes place in expression evaluation.   **(05 Marks)**
   c. What are Annotations? Explain the following Built-in annotations with an example program:
       @Override   @Inherited   @Retention   **(10 Marks)**

OR

2 a. Explain the following methods of java.lang.Enum with an example program.
       (i) ordinal( )   (ii) compareTo( )   (iii) equals( )   **(10 Marks)**
   b. Explain how to obtain Annotations at Run Time by use of Reflection.   **(10 Marks)**

Module-2

3 a. What is collection framework? Explain the methods defined by collection interface.
                                                                                (10 Marks)
   b. Explain the constructors of HashSet class with an example program.   **(10 Marks)**

OR

4 a. Explain the constructors of TreeSet class and write java program to create TreeSet collection.   **(10 Marks)**
   b. Explain any four legacy classes of Java's collection framework.   **(10 Marks)**

Module-3

5 a. What is string in Java? Write a java program that demonstrates any four constructors of String class.   **(10 Marks)**
   b. Differentiate between equals( ) and == with respect to String comparison . **(05 Marks)**
   c. Explain any two character extraction methods of String class.   **(05 Marks)**

OR

6 a. Explain any four String modification methods of String class.   **(10 Marks)**
   b. Explain the following methods of StringBuffer class:
       (i) append( )   (ii) insert( )   (iii) reverse( )   (iv) replace   **(10 Marks)**

Module-4

7 a. Explain the differences between Servlets and CGI programs.   **(05 Marks)**
   b. Write a Java Servlet program that demonstrates how parameters can be accessed from HTML.   **(10 Marks)**
   c. Explain any two Cookies methods.   **(05 Marks)**

OR

8 a. Define JSP. Explain different types of JSP tags by taking suitable example.   **(10 Marks)**
   b. List and explain core classes and interfaces in javax.servlet package.   **(10 Marks)**

Module-5

9 a. Explain the four types of JDBC drivers.   **(10 Marks)**
   b. Describe the various steps of JDBC with code snippets.   **(10 Marks)**

OR

10 a. Write a Java program to execute a database transaction.   **(10 Marks)**
   b. Explain :
       (i) Callable Statement Object
       (ii) Prepared Statement Object.   **(10 Marks)**