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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 value0f( ) 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 olJava'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)**