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17CS553

**Fifth Semester B.E. Degree Examination, Feb./Mar. 2022**

## **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. Define Enumeration. Outline its syntax. Compare JAVA and C++ enumeration. (06 Marks)  
b. Design a JAVA program to implement ordinal(), compareTo() and equals(). (08 Marks)  
c. Discuss Autoboxing and Auto unboxing with an example. (06 Marks)

OR

- 2 a. Define Annotations and mention its need. (04 Marks)  
b. Discuss the following built-in annotations with an example:  
(i) @Override (ii) @Deprecated (iii) @Retention (10 Marks)  
c. Discuss values() and valueOf() methods with an example. (06 Marks)

### Module-2

- 3 a. Define collection classes. List and give description of different collection classes. (10 Marks)  
b. Discuss LinkedList class with an example. (10 Marks)

OR

- 4 a. Explain constructors of Priority Queue. (10 Marks)  
b. Demonstrate different methods defined by de queue with example. (10 Marks)

### Module-3

- 5 a. Discuss Java String constructors with an example. (10 Marks)  
b. Discuss following string methods with an example:  
(i) equals() (ii) equalsIgnoreCase() (iii) getChar() (iv) trim() (10 Marks)

OR

- 6 a. Demonstrate following string methods with an example:  
(i) append() (ii) delete() (iii) replace() (iv) charAt() (10 Marks)  
b. Explain String Searching with an example. (10 Marks)

### Module-4

- 7 a. Discuss the life cycle of a servlet with an example. (10 Marks)  
b. Design a JAVA Servlet which reads two parameters from the webpage, say num 1 and num 2, which are type integers and perform arithmetic operation(+, -, \*, /) of the two numbers and return back the result to the webpage. (10 Marks)

OR

- 8 a. Demonstrate the different types of Java Server Page with example. (10 Marks)  
b. Design a JSP program to check whether User entered number is ODD or EVEN. (05 Marks)  
c. Design a JSP program to check whether user entered year is leap year or not. (05 Marks)

### Module-5

- 9 a. Describe the various steps in JDBC process with suitable example. (10 Marks)  
b. Discuss ResultSetMetaData and design a JDBC program to display table column count and column type. (10 Marks)

OR

- 10 a. Discuss JDBC prepared statement object with JDBC program. (10 Marks)  
b. Discuss Scrollable ResultSet object with JDBC program. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.