

# CBCS SCHEME

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17CS553

## Fifth Semester B.E. Degree Examination, June/July 2023 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 Enumeration? Explain values() and valueOf() method with an example. (07 Marks)  
b. Explain various types of wrappers used in Java. (08 Marks)  
c. Explain how to obtain annotation at run time by use of reflection. (05 Marks)

OR

- 2 a. Explain the following methods of Java.lang.Enum with an example program.  
i) ordinal ii) compareTo() iii) equals() (06 Marks)  
b. What are annotation? Explain the following built-in annotation with program as an example,  
@Override, @Inherited and @Retention. (08 Marks)  
c. Explain numeric type wrapper with an example program in Java. (06 Marks)

### Module-2

- 3 a. What is collection framework? Explain the methods defined by collection framework interface. (08 Marks)  
b. Explain the constructor of TreeSet class and write java program to create TreeSet collection. (07 Marks)  
c. Explain the ArrayList class of collection classes. (05 Marks)

OR

- 4 a. Explain the methods defined by ArrayDeque class. (08 Marks)  
b. Explain the constructors of HashSet class with an explain program. (08 Marks)  
c. Differentiate between ArrayList and LinkedList. (04 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 constructor used in Java with examples. (08 Marks)  
c. Explain any two string Buffer methods with an example. (04 Marks)

OR

- 6 a. Differentiate between equals() & == with respect to string with a program. (06 Marks)  
b. Write a program to remove duplicate character from a given string and display the resultant string. (08 Marks)  
c. Explain following character extraction method :  
i) CharAt() ii) toCharArray(). (06 Marks)

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.

**Module-4**

- 7 a. What is the role of Tomcat server? Explain different steps involved in configuring for development of servlet program execution. (10 Marks)
- b. Write a Java Servlet program to accept two parameter from web page, find the sum of them display the result in web.page. Also give necessary html strips to create webpage. (10 Marks)

**OR**

- 8 a. Explain different JSP tags with a program. (08 Marks)
- b. Explain the life cycle of servlets. (04 Marks)
- c. What is cookie? Write a JSP program to create and read a cookie. (08 Marks)

**Module-5**

- 9 a. Explain the various steps of JDBC with code snippets. (08 Marks)
- b. Explain the four types of JDBC drives. (06 Marks)
- c. Explain Callable statement object with example. (06 Marks)

**OR**

- 10 a. Write a java program to execute a database transaction. (10 Marks)
- b. Describe the following concepts with code snippets :
- i) Scrollable result set
  - ii) Updatable result set
  - iii) Prepared statement object
  - iv) Tomcat.
- (10 Marks)

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