

# CBCS SCHEME



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18CS644

## Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 Advanced Java and J2EE

Max. Marks: 100

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

### Module-1

- 1 a. Explain the following methods of java.lang.Enum with an example:  
(i) ordinal() (ii) compareTo() (iii) equals() (08 Marks)
- b. Briefly explain Numeric Type wrappers. (06 Marks)
- c. What is an Annotation? Explain various retention policies for annotation in Java. (06 Marks)

OR

- 2 a. What are Enumerations? Explain values() and valueOf() methods with an example program. (08 Marks)
- b. What is Autoboxing? Write a Java program that demonstrates autoboxing/unboxing occurs inside expressions. (06 Marks)
- c. Demonstrate single member annotations with an example. (06 Marks)

### Module-2

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

OR

- 4 a. Explain constructor of TreeSet class and write a Java program to create TreeSet collection. (10 Marks)
- b. What is Map? Explain the methods defined by Map interface. (10 Marks)

### Module-3

- 5 a. Explain any two character extraction methods of String class. (06 Marks)
- b. Write a java program to sort array of Strings using compareTo() function. (06 Marks)
- c. Explain indexOf() and lastIndexOf() methods of String class with an example. (08 Marks)

OR

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

### Module-4

- 7 a. What is a Servlet? Explain the Life Cycle of Servlets. (07 Marks)
- b. Write a program using servlet which contains HTML page with various color options. When user choose 8<sup>th</sup> particular color, the background of that page should be changed accordingly. (08 Marks)
- c. Write a short note on Session Tracking. (05 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.

OR

- 8 a. What is Cookie? List out the methods defined by Cookie? Write a Java program to add a Cookie. (10 Marks)
- b. Define JSP. Explain different types of JSP tags by taking suitable example. (10 Marks)

Module-5

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

OR

- 10 a. What is transaction processing? Write a Java program to execute a database transaction. (10 Marks)
- b. Explain the following : (10 Marks)
- (i) Callable Statement Object
  - (ii) Prepared Statement Object

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