

**II/IV B. Tech. DEGREE EXAMINATIONS, JULY/AUGUST-2023****Second Semester****ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING****JAVA PROGRAMMING****Time: Three Hours****Maximum: 70 Marks****Answer ONE Question from each unit.****5 x 14 = 70 M****All Questions carry equal marks.****UNIT-I**

1. a) Describe the structure of java program with examples.  
b) Define an operator? Explain type of operation in Java with examples.

**(OR)**

2. a) List and explain the features of JAVA/buzz words in JAVA.  
b) Elaborate the concept of string buffer class with an example program.

**UNIT-II**

3. a) What is the use of interface? How to implementing interfaces? Explain in detail.  
b) Develop a Java program reading the data of current java file and writing it into another file.

**(OR)**

4. a) Explain different types of inheritances with suitable examples?  
b) Summarize the various access protections in a package with examples.

**UNIT-III**

5. a) Develop a java program to create own exception for negative value exception if the user enter negative value.  
b) Draw and explain various states of thread life cycle with neat diagram.

**(OR)**

6. a) Describe throw and throws keywords in java with the help of an example program.
- b) Discuss how to set the priority to threads? What are the different ranges? Explain in detail.

**UNIT-IV**

7. a) Distinguish between AWT and swing components.
- b) Develop a java program for handling keyboard events.

**(OR)**

8. a) Illustrate the various layout managers with neat diagrams.
- b) Differentiate between a Jcheckbox and a JradioButton with necessary constructors and methods.

**UNIT-V**

9. a) Compare and contrast differences between applets and application programs.
- b) List the types of drivers in JDBC? Explain in detail.

**(OR)**

10. a) Develop an applet program that displays “**welcome to JAVA programming**”.
- b) List and explain the basic steps in developing JDBC applications.

