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DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2024

Semester: IV 351CP17 PROGRAMMING IN JAVA

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Explain the key buzzwords associated with Java and how they contribute to the language's versatility and effectiveness. **(10 Marks)**
b) Write a java program to find whether the number is odd or even. **(5 Marks)**
c) Discuss the lexical issues in Java. **(5 Marks)**
2. a) Explain the concept of classes and objects in Java with example. **(10 Marks)**
b) Describe constructors in Java. What are the different types of constructors? **(10 Marks)**
3. a) Explain the concept of inheritance in Java. How does inheritance promote code reusability? Illustrate with an example. **(10 Marks)**
b) Explain method overriding with an example. **(10 Marks)**
4. a) Explain the fundamental concepts of exception handling in Java. **(10 Marks)**
b) Describe the Java thread model. **(10 Marks)**
5. a) Explain the difference between byte streams and character streams in Java. **(10 Marks)**
b) Describe the role of legacy classes and interfaces in Java, specifically Vector, Stack, and Enumeration. **(10 Marks)**
6. a) Explain the different data types in Java, including primitive data types and reference data types. **(10 Marks)**
b) Explain about the jump statements in detail with an example program. **(10 Marks)**
7. a) Explain the concept of method overloading in Java. **(10 Marks)**
b) What is argument passing in Java? Provide examples to illustrate how primitive types and objects are passed to methods. **(10 Marks)**