CS2420 Assessment Exam

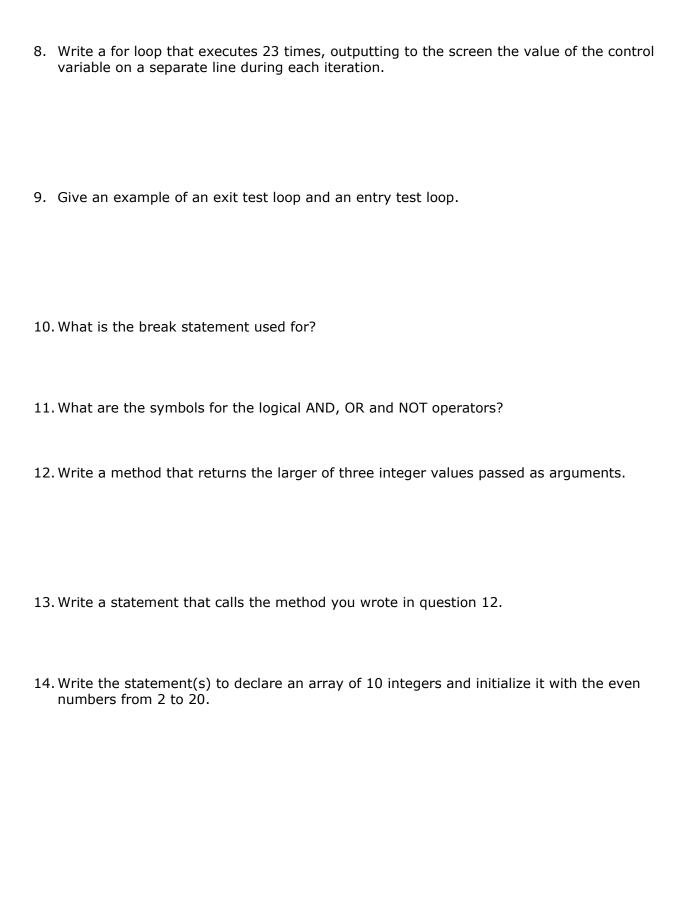
Purpose: To assess your familiarity with JAVA and fundamental object oriented concepts. This exam will not be graded.

Instructions: Answer each question as completely as you can.

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	set actions? Allower each question as completely as you cam		
asic Java			
1.	What is bytecode?		
2.	What does the JVM do?		
2	What are the five prithmetic energies 101/0 offers?		
3.	What are the five arithmetic operators JAVA offers?		
4.	What is the difference between = and ==?		
5.	How does the conditional operator (?:) work?		
6.	Write a nested if statement.		
7.	What are the two different types of while loops?		

CS2420 Assessment Exam Page 1 of 5



CS2420 Assessment Exam Page 2 of 5

Objects

15. De 1.	fine the following terms: class
2.	object
3.	instantiate
4.	encapsulation
5.	data abstraction
6.	instance variable
7.	inheritance
8.	composition
9.	polymorphism
16. Wł	nat is the purpose of the class constructor method(s)?
17. Ho	w do static class variables differ from other class variables?
18. Wł	nat is the purpose of an abstract class?

CS2420 Assessment Exam Page 3 of 5

Exception Handling

19. What is an exception?

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20. Describe the purpose of each block:
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1. try
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- 2. catch
- 3. finally

Files and Streams

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21. Given the following declarations:
int age;
Scanner input = new Scanner( System.in );
write a statement to assign a value to age from keyboard input.
```

22. Explain the difference between binary files and text files.

CS2420 Assessment Exam Page 4 of 5

UML

- 24. Define the purpose of the following UML diagrams
 - 1. Use case
 - 2. Activity
 - 3. Sequence/collaboration
 - 4. Class
- 25. Draw a class diagram for a Person class with String variables for first name and last name and an integer variable for age. Include a default constructor, parameterized constructor, and set and get methods for all class variables.

CS2420 Assessment Exam Page 5 of 5