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| Instructor |  | Due Date |  |

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| Part | **1** | **2** | **3** | **4** | Total |
| Maximum Points | **25** points | **25** points | **25** points | **25** points | **100** points |
| **Your Score** |  |  |  |  |  |

**Textbook Reading Assignment**

Thoroughly read Chapter(s) 1 in your **Java Programming** textbook.

**Part 1 Glossary Terms**

Define, in detail, each of these glossary terms from the realm of computer programming logic and design and computer topics, in general. If applicable, use examples to support your definitions. Consult your notes or course textbook(s) as references or the Internet by visiting Web sites such as:

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| **http://www.askjeeves.com** | **http://www.webopedia.com** | **http://www.wikipedia.org** |

**(a) Applet**

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| Applet in Java is a small application written in Java and it is delivered to user as bytecode. Usually a Java applet is deployed on a web page, whenever the applet was launched or triggered, it was running in JVM (Java Virtual Machine), in other words, Java runtime. The JVM is separate from other processes including which triggers JVM to open. |

**(b) Class Declaration**

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| Basically an object is created from a class. In Java, the new key word is used to create new objects.  So class declaration is the behavior or the process to declare a template of an object. |

**(c) Compiler**

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| A compiler is the tool to make source code to be executable files that could directly executed by system. Or it is the linker between human readable source code and machine executable byte code  ref:  https://en.wikipedia.org/wiki/Java\_compiler  A Java compiler is a compiler for the programming language Java. The most common form of output from a Java compiler is Java class files containing platform-neutral Java bytecode, but there are also compilers that emit optimized native machine code for a particular hardware/operating system combination. |

**(d) Object Class**

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| this is the parent class of all classes in Java, in another words, all Java classes are subclass of object class which is the topmost class of java inherit trees. |

**(e) Object - Oriented Programming**

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| Object-oriented programming (OOP) is a programming paradigm based on the concept of "objects", which may contain data, in the form of fields, often known as attributes; and code, in the form of procedures, often known as methods. A feature of objects is that an object's procedures can access and often modify the data fields of the object with which they are associated (objects have a notion of "this" or "self"). In OOP, computer programs are designed by making them out of objects that interact with one another. |

**Part 2 Introductory Topics in Programming Logic and Design and Java**

Choose from (a), (b), (c), (d) or (e) to answer the following questions.

B**(1)** Java was conceived to be platform or device dependent. (a) True (b) False

A**(2)** Java is an object - oriented programming language. (a) True (b) False

B**(3)** A main() method is not included in an applet. (a) True (b) False

B**(4)** Applets are never placed in a Web page. (a) True (b) False

B**(5)** The & character is the concatenation operator for strings. (a) True (b) False

B**(6)** The statements of a method appear between a { and a }. (a) True (b) False

B**(7)** Translating an algorithm into the syntax of Java is the design phase of software development.

(a) True (b) False

D**(8)** Which of the following sequence of software development steps are in the correct order from start to finish of a project?

(a) code, design, test, maintenance (b) test, design, maintenance, code

(c) design, test, code, maintenance (d) design, code, test, maintenance

C**(9)** How would a programmer include a comment in a Java program that would be ignored by the compiler?

(a) anything between { and } (b) any line with a C in the first column of the code

(c) anything between /\* and \*/ (d) any line preceded with the letters REM

D**(10)** Given the following program fragment, what is the purpose of the extends clause?

class SalaryEmployee extends Employee

{ . . . }

(a) It shows that SalaryEmployee is a subclass of Employee.

(b) It declares that SalaryEmployee will add new attributes to Employee.

(c) It specifies that SalaryEmployee inherits attributes of Employee.

(d) All of these

**Part 3 Programming Exercise(s)**

You require a program that calculates discounted prices. You know the original price and the discount percent and you wish to calculate the price after subtracting the discount. Write an algorithm for the solution of this problem. Instead of using actual program code, using English - Like statements ( pseudocode ) to construct your algorithm.

Attach your completed exercise to this assignment sheet.

Initialize original\_price , discount\_rate, final\_price

Input original\_price

final\_price = oringinal\_price \* ( 1 - discount\_rate )

Output final\_price

**Part 4 Programming Exercise(s)**

Using only the exact lines of code given below, rearrange the statements to modify

the following Java program such that the program will output the following numbers.

Write your completed modified code using the space provided below or attach your

code on a separate piece of paper.

31

21

23

//program code modified

public class Sample1

{

public static void main(String args[])

{

int a = 1, b = 2, c = 3;

System.out.print(c);

System.out.println(a);

System.out.print(b);

System.out.println(a);

System.out.print(b);

System.out.print(c);

System.out.println(“");

}

}