Faculty of Information Technology

I declare that I am familiar with, and will abide to the Examination rules of CTU	**SUBJECT NAME: BEGINNER JAVA** **SUBJECT CODE: JD521**

Formative Assessment 1 **Duration**: **Date**: - **Total Marks**: 100 **Total pages**: 5	**Examiner**: Mr. Isaac L **Moderator:** Mr. Thaveshan	

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Signature

Student number

Surname:	**Initials**:	/	%

Instructions:

- Recall to keep a copy of all submitted assignments.
- All work must be typed using Microsoft Word and convert the word document to PDF before uploading to COLCampus.
- Kindly note that you will be evaluated on your writing skills in all your assignments.
- Negative marking will be applied if you are found guilty of plagiarism, poor writing skills or if you have applied incorrect or insufficient referencing.
- Each assignment must include a cover page, table of contents and full bibliography, based on Harvard referencing style.
- Students are not allowed to offer their work for sale or to purchase the work of other students. This includes the use of professional assignment writers. If this should happen, CTU training Solutions reserves the right not to accept future submissions from a student.

1. Spelling, style, fonts, font size, line spacing

   - Please copy the questions onto your answer sheet (single space the questions), and make sure to use numbers to indicate the answers to each question.
   - Always use a spell checker before you submit assignments! We reserve the right to deduct point for each obvious misspelling.
   - Always double-space your answers.
   - Please use Arial (or Calibri (Body)), 12 point as the font for your assignments. Certain fonts have been known not to come across in the PDF files.
   - Use only black or blue font face colors. Do not use red!

Question 1   50 MARKS

Answer all the questions in this section using your own word

Question 1: One of the components of a computer is its *CPU*. What is a CPU and what role does it play in a computer?

Question 2: Explain what is meant by an "asynchronous event." Give some examples.

Question 3: What is the difference between a "compiler" and an "interpreter"?

Question 4: Explain the difference between *high-level languages* and *machine language*.

Question 5: If you have the source code for a Java program, and you want to run that program, you will need both a *compiler* and an *interpreter*. What does the Java compiler do, and what does the Java interpreter do?

Question 6: What is a *subroutine?*

Question 7: Java is an object-oriented programming language. What is an *object?*

Question 8: What is a *variable?* (There are four different ideas associated with variables in Java. Try to mention all four aspects in your answer. Hint: One of the aspects is the variable's name.)

Question 9: Java is a "platform-independent language." What does this mean?

Question 10: What is the "Internet"? Give some examples of how it is used. (What kind of services does it provide?)

Question 2   20 MARKS

1. Which two import statements will allow for the import of the HashMap class?

A. import java.util.HashMap;
B. import Java.util.*;
C. import java.util.HashMap.*;
D. import java.util.hashMap;

2. Which statement would designate that your file belongs in the package com.ocajexam.utilities?

A. pack com.ocajexam.utilities;
B. package Com.ocajexam.utilities.*
C. package com.ocajexam.utilities.*;
D. package com.ocajexam.utilities;

3. Which of the following is the only Java package that is imported by default?

A. java.awt
B. java.lang
C. java.util
D. java.io

4. What Java-related features are new to J2SE 5.0?

A. Static imports
B. package and import statements
C. Autoboxing and unboxing
D. The enhanced for loopUnderstand Package-Derived Classes

5. The JCheckBox and JComboBox classes belong to which package?

A. java.awt
B. javax.awt
C. java.swing
D. javax.swing

6. Which package contains the Java Collections Framework?

A. java.io
B. java.net
C. java.util
D. java.utils

7. The Java Basic I/O API contains what types of classes and interfaces?

A. Internationalization
B. RMI, JDBC, and JNDI
C. Data streams, serialization, and file system
D. Collection API and data streams

8. Which API provides a lightweight solution for GUI components?

A.   AWT
B.   Abstract Window Toolkit
C.   Swing
D.   AWT and Swing

9. Consider the following illustration. What problem exists with the packaging? You may wish to reference Appendix G on the Unified Modeling Language (UML) for assistance.

A.   You can have only one class per package.
B.   Packages cannot have associations between them.
C.   Package com.ocajexam.backing_beans fails to meet the appropriate packaging naming conventions.
D.   Package COM.OCAJEXAM.UTILS fails to meet the appropriate packaging naming conventions.Understand Class Structure

10. When apply naming conventions, which Java elements should start with a capital letter and continue on using the camel case convention?

A.   Class names
B.   Interface names
C.   Constant names
D.   Package names
E.   All of the above

Question 3   30 MARKS

Sammy's Seashore Supplies rents beach equipment such as kayaks, canoes, beach chairs, and umbrellas to tourists. Write a Java program that displays Sammy's motto, which is "Sammy's makes it fun in the sun." AND all services offered by Sammy. Save the file as SammysMotto.java. Create a second program that displays the motto surrounded by a border composed of repeated Ss. Save the file as SammysMotto2.java.

Use netbeans to create this program and submit a screeshort of your program output and the java code

Completed Declaration of Authenticity

I Brandon Jason de Bruyn _____ hereby

(FULL NAME)

declare that the contents of this assignment __FA1_____ is entirely my
own work except for the following documents: (List the documents and page numbers of
work in this portfolio that were generated in a group)

Activity	Date

Signature: _____ Date: _____