

answers are at the bottom of the page  
work done in kami

# Introduction to Computers and C++ Programming – Worksheet I

## Topic 1 Review Questions

Below are some questions based on Topic 1. Most of the solutions should be found within the powerpoint or the accompanying videos.

1. What are the five main components of a computer?
2. What is the difference between a machine-language program and a high-level language program?
3. What is the role of a compiler?
4. What is a source program? What is an object program?
5. What is an operating system?
6. What purpose does the operating system serve?
7. Name the operating system that runs on the computer you use to prepare programs for this course.
8. What is linking?
9. Find out whether linking is done automatically by the compiler you use for this course.
10. What is the first step you should take when creating a program?
11. The program design process can be divided into two main phases. What are they?
12. Explain why the problem-solving phase should not be slighted.
13. What are the three main kinds of program errors?
14. What kinds of errors are discovered by the compiler?
15. If you omit a punctuation symbol (such as a semicolon) from a program, an error is produced. What kind of error?
16. Omitting the final brace } from a program produces an error. What kind of error?

17. Suppose you write a program that is supposed to compute the interest on a bank account at a bank that computes interest on a daily basis, and suppose you incorrectly write your program so that it computes interest on an annual basis. What kind of program error is this?
18. Dividing by zero produces an error. What kind of error?

1. Central Processing Unit, Main Memory, Secondary Memory/Storage, Input Devices, Output Devices
2. Machine-language programs communicate directly to the computer hardware, readable to the computer but not so much for us, while high-level language programs are more similar to the human languages in the sense that it is easier to read and write, but have to be translated to binary for the CPU to read and execute.
3. The role of the compiler is to translate high-level languages into machine-language.
4. Source program is the original program in high-level language, while object program is in machine language
5. An operating system is system software that manages computer hardware and the programs that run on them/
6. It manages all the software and hardware on the computer.
7. Microsoft Windows
8. Combining object code for programs we write and object code for other pre-compiled routines such as libraries into the machine language program the CPU can run.
9. Linking is automatic in c++
10. Define what the program does
11. Problem solving phase and Implementation phase
12. To find any problems in the algorithm before you translate it to c++. Finding these problems will produce a working program faster than finding the problems while in implementation phase.
13. syntax errors, run-time errors, and logic errors
14. syntax errors and run-time errors
15. syntax error
16. syntax error
17. logic error, because the program runs but the solution is not what was anticipated
18. run-time error

Checked by:

Group 3 - Jeffrey Romero, Shuo Zhang. Group 6 - Jason Cook, Vinson Chang