



## ПРАКТИЧЕСКОЕ ЗАДАНИЕ I УРОВНЯ «ПЕРЕВОД ПРОФЕССИОНАЛЬНОГО ТЕКСТА»

Время, отводимое на выполнение задания – 1 час (60 минут)

Максимальное количество баллов – 10 баллов.

Задача 1. Выполните перевод предложенного текста

Задача 2. Ответьте на поставленные вопросы

### HARDWARE, SOFTWARE, AND FIRMWARE

The units that are visible in any computer are the physical components of a data processing system, or **hardware**. Thus, the input, storage, processing and control devices are hardware. Not visible is the **software** — the set of computer programs, procedures, and associated documentation that make possible the effective operation of the computer system. Software programs are of two types: systems software and applications software.

*Systems software* are the programs designed to control the operation of a computer system. They do not solve specific problems. They are written to assist people in the use of the computer system by performing tasks, such as controlling all of the operations required, to move data into and out of a computer and all of the steps in executing an application program. The person who prepares systems software is referred to as a systems programmer. Systems programmers are highly trained specialists and important members of the architectural team.

*Applications software* are the programs written to solve specific problems (applications), such as payroll, inventory control, and investment analysis. The word program usually refers to an application program, and the word programmer is usually a person who prepares applications software.

Often programs, particularly systems software, are stored in an area of memory not used for applications software. These protected programs are stored in an area of memory called read-only memory (ROM), which can be read from but not written on.

**Firmware** is a term that is commonly used to describe certain programs that are stored in ROM. Firmware often refers to a sequence of instructions (software) that is substituted for hardware. For example, in an instance where cost is more important than performance, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition.

1. What are the types of software?
2. What are systems software?
3. What are applications software?
4. What problems do applications software solve?
5. How can a computer system architect use firmware?