1. Прочитать текст, ответить письменно на вопросы, выполнить упражнение.
2. Отправить по адресу: Kalenskaya_alena@mail.ru

Computers and the Environment

According to a United Nations study, producing a computer is more materials-intensive than manufacturing an automobile. Extending the lifespan of your computer might be environmentally friendly, but keeping up with technology probably means replacing your computer every few years. When it is time to replace your computer, is there a way to do it in an environmentally safe way? In this world of rapidly changing technology, disposal of computers and other electronic equipment has created a new and growing waste stream. In the United States alone, almost eight printer cartridges are discarded every second. Landfills hold millions of tons toxic substances such as lead, cadmium and mercury.

Is it worth recycling obsolete computers? Then the question arises: Who pays? Should it be the taxpayer, the individual consumer, the retailer, or the computer manufacturer? Consumers buying computers in California, have to pay a recycling fee at the time of purchase. Maryland requires computer manufacturers to ante up an annual fee for electronic waste disposal. Some manufacturers provide their customers with a postage-paid shipping box so they can return the product for recycling. In Europe, legislation proposes to make manufacturers accept returns of their old equipment free of charge and take appropriate steps to recycle it.

Having no or vague laws, consumers are often confused about how to dispose of their unwanted computers, monitors, CDs, and ink cartridges.

Письменно ответить на вопросы

1. Have you ever thrown away an old computer or other electronic device?

2. Are you aware of any option for recycling electronic equipment in your area?

3. Would it be fair for consumers to pay a recycling tax on any electronic equipment that they purchase?

Упражнение №1

1. ___ is permanent, non-volatile, typically used to store a computer's startup routine.

a) RAM b) ROM c) CMOS d) SDRAM

2. ___ storage devices store data in a non-volatile, erasable, low-power chip.

a) optical b) magnetic c) solid state d) none of the above

3. RAM is considered to be volatile memory because ___.

a) it sporadically loses information b) it requires electrical power to hold data

c) data stored in it can randomly duplicate itself d) it's measured in GB

4. Data stored in a special high-speed memory, called ___, can be accessed more rapidly than data from memory located elsewhere on the system board.

a) clock speed b) word size c) cache d) instruction set

5. All of the following are examples of storage medium except ___.

a) a CD b) paper c) a keyboard d) a DVD

6. Storage device that stores data as pits and lands is referred to as ___.

a) tape b) floppy disk c) CD-ROM d) hard drive

7. 1s and 0s are referred to as ___ digits.

8. An expansion ___ is any connector that passes data in and out of a computer or peripheral device.

9. Many of today's microprocessors use ___ processing, which allows them to execute multiple instructions at the same time.

10. A ___ circuit is also known as a computer chip or microchip. It is a very thin slice of semi-conducting material packed with microscopic circuit elements.

11. Prior to processing data is copied from a storage device into ___.

12. Every action that is performed by a microprocessor is measured in ___, the smallest unit of measurement used by microprocessors.

13. ___ in RAM are microscopic electronic parts that hold the bits that represent data.

14. The word "bit" and the lowercase letter "b" are abbreviations for "binary___".

15. The ROM ___ is a set of instructions which tells the computer how to access the hard disk, find the operating system, and load the operating system into RAM.

16. The ___ for a machine code instruction specify the data for the operation.

17. Data travels from one component to another over circuits called a data ___.

18. The process of retrieving data from a storage medium is referred to as "___ data" or "opening a file".

19. Data which is composed of letters, symbols, and numerals that is not used in arithmetic operations is called ___ data.

20. The two main components of a storage system are a storage device and a ___.

Projects. *Choose and perform one of the projects given.*

1. Write a two- to five-page paper about recycling computers. To begin this project, consult the text from Critical Thinking. Then determine the specific aspect of the issue you will present in your paper. You might, for example, decide to focus on toxic materials that end up in landfills or barriers that discourage shipping old computers across national borders. Whatever aspect of the issue you present, make sure you can back up your discussion with facts and references to authoritative articles and Web pages.

2. Work in groups of three or four. Select a digital device (e.g. a printer, scanner, digital camera, digital music player, etc.), and create promotional materials for a tradeshow booth featuring your "product". You might include a product photo, list of specifications, a short instruction manual. Present your sales pitch or demonstration to the rest of the class.