Exercise 1

Ответьте на вопросы:

1. Many industries are highly automated or use automation technology in some part of their operation.
2. In communications and especially in the telephone industry, dialing, transmission, and billing are all done automatically.
3. Railroads too are controlled by automatic signaling devices, which have sensors that detect cars passing a particular point.
4. Agriculture, sales, and some service industries are difficult to automate.
5. The concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is evolving  rapidly, partly because the applications of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) techniques vary both within a plant or industry and also between industries.
6. The oil and chemical industries, for example, have developed the continuous-flow method of production, owing to the nature of the raw materials used. In a refinery, crude oil enters at one point and flows continuously through pipes in cracking, distillation, and reaction devices as it is being processed into such products as gasoline and fuel oil.
7. Yes. An array of automatic-control devices governed by microprocessors and coordinated by a central computer is used to control valves, heaters, and other equipment, thereby regulating both the flow and reaction rates.
8. In the steel, beverage, and canned food industries, some of the products are produced in batches. For example, a steel furnace is charged, brought up to heat, and a batch of steel ingots produced. In this phase very little automation is evident. These ingots, however, may then be processed automatically into sheet or structural shapes by being squeezed through a series of rollers until the desired shape is achieved.
9. The automobile and other consumer product industries use the mass production techniques of step-by-step manufacture and assembly.
10. This technique approximates the continuous-flow concept but involves transfer machines; thus, from the point of view of the auto industry, transfer machines are essential to the definition of automation.
11. Each of these industries uses automated machines in all or part of its manufacturing processes.
12. As a result, each industry has a concept of automation that fits its particular production needs. More examples can be found in almost every phase of commerce.
13. Automated product ordering systems, integration of seller and customer information systems, promptly informing the customer about the progress of their order.
14. Widespread use of automation influences on individual’s and society’s daily life.
15. Widespread use of automation and its influence on daily life provides the basis for the concern expressed by many about the influence of automation on society and the individual.

Exercise 2

Заполните пропуски недостающими по смыслу словами, используя текст:

1. Railroads too are controlled by automatic signaling devices.
2. The agriculture industry may become more mechanized, especially in the processing and packaging of foods.
3. In beverage and canned food industries some of the products are produced in batches.
4. When a steel furnace is charged and brought up to heat a very little automation is needed.
5. The ingots are processed automatically into sheet or structural shapes.
6. The automobile and other consumer product industries use the mass production techniques of step-by-step manufacture and assembly.
7. Most of the modern industries use automated machines in all or parts of their manufacturing processes.
8. Each industry has a concept of automation that fits its production needs.
9. More examples of automation can be found in almost every phase of commerce.
10. The widespread use of automation and its influence on daily life provides the concern expressed by many about the influence of automation on society and the individual.

Exercise 3

Соответствуют ли данные предложения содержанию текста:

1. All industries are highly automated or use automation technology in some part of their operation. - True

2. In communications and especially in the telephone industry, dialing, transmission, and billing are all done manually. - False

3. Railroads are controlled by automatic signaling devices. - True

4. Agriculture, sales, and some service industries are easy to automate. - False

5. Doctors consult a computer to assist in diagnosis and computer also make the final decision and prescribe therapy. - False

6. The concept of automation is growing rapidly. - True

7. In petrochemical industry an array of automatic-control devices are used to control valves, heaters, and other equipment. - True

8. The automobile industry uses the mass production techniques of step-by-step manufacture and assembly - True.

9. In auto industry the volume of power consumed is essential to the definition of automation. - False

10. The widespread use of automation doesn’t influence our daily life. - False

Exercise 4

Переведите на русский язык следующие предложения:

1. Механизация часто используется для простой замены человеческого труда машинами.
2. Автоматизация обычно подразумевает объединение машин в самоуправляющуюся систему.
3. Автоматизация произвела революцию в тех областях, в которых она была внедрена.
4. Едва ли найдется хоть один аспект современной жизни, на который не повлияла бы автоматизация.
5. Термин "автоматизация" был введен в автомобильной промышленности около 1946 года для описания все более широкого использования автоматических устройств и средств управления в механизированных производственных линиях.
6. Происхождение этого слова приписывается Д. С. Хардеру, инженеру-менеджеру компании Ford Motor Company.
7. В общем случае автоматизацию можно определить как технологию, связанную с выполнением процесса с помощью запрограммированных команд в сочетании с автоматическим управлением обратной связью для обеспечения надлежащего выполнения инструкций.
8. Автоматическая система способна работать без вмешательства человека.
9. Продвинутые системы представляют собой уровень возможностей и производительности, который во многих отношениях превосходит способности человека выполнять те же самые действия.