**Электронное обучение ГБПОУ КК БИТТ**

**Учебная дисциплина: ОГСЭ.03 Иностранный язык группа №35**

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**Задание 1**

**Внимательно прочитайте текст и убедитесь, что хорошо понимаете его смысл. Лексика должна быть вам знакома, но при необходимости воспользуйтесь онлайн-словарем:**

Welding is a process when metal parts are joined together by the application of heat, pressure, or a combination of both. The processes of welding can be divided into two main groups:

- pressure welding, when the weld is achieved by pressure and

- heat welding, when the weld is achieved by heat. Heat welding is the most common welding process used today.

Nowadays welding is used instead of bolting and riveting in the construction of many types of structures, including bridges, buildings, and ships. It is also a basic process in the manufacture of machinery and in the motor and aircraft industries. It is necessary almost in all productions where metals are used.

The welding process depends greatly on the properties of the metals, the purpose of their application and the available equipment. Welding processes are classified according to the sources of heat and pressure used: gas welding, arc welding, and resistance welding. Other joining processes are laser welding, and electron-beam welding.

Gas Welding

Gas welding is a non-pressure process using heat from a gas flame. The flame is applied directly to the metal edges to be joined and simultaneously to a filler metal in the form of wire or rod, called the welding rod, which is melted to the joint. Gas welding has the advantage of using equipment that is portable and does not require an electric power source. The surfaces to be welded and the welding rod are coated with flux, a fusible material that shields the material from air, which would result in a defective weld.

Arc Welding

Arc-welding is the most important welding process for joining steels. It requires a continuous supply of either direct or alternating electrical current. This current is used to create an electric arc, which generates enough heat to melt metal and create a weld.

Arc welding has several advantages over other welding methods. Arc welding is faster because the concentration of heat is high. Also, fluxes are not necessary in certain methods of arc welding. The most widely used arc-welding processes are shielded metal arc, gas-tungsten arc, gas- metal arc, and submerged arc.

Resistance Welding

In resistance welding, heat is obtained from the resistance of metal to the flow of an electric current. Electrodes are clamped on each side of the parts to be welded, the parts are subjected to great pressure, and a heavy current is applied for a short period of time. The point where the two metals touch creates resistance to the flow of current. This resistance causes heat, which melts the metals and creates the weld. Resistance welding is widely employed in many fields of sheet metal or wire manufacturing and is often used for welds made by automatic or semi-automatic machines especially in automobile industry.

**Задание 2**

**Письменно в тетради ответьте на следующие вопросы:**

1. How can a process of welding be defined?

2. What are the two main groups of processes of welding?

3. How can we join metal parts together?

4. What is welding used for nowadays?

5. Where is welding necessary?

6. What do the welding processes of today include?

7. What are the principles of gas welding?

8. What kinds of welding can be used for joining steels?

9. What does arc welding require?

10. What is the difference between the arc welding and shielded-metal welding?

**Задание 3**

**Письменно переведите следующие словосочетания на английский язык:**

1. сварка давлением

2. тепловая сварка

3. болтовое (клепаное) соединение

4. процесс сварки

5. зависеть от свойств металлов

6. имеющееся оборудование

7. сварочный электрод

8. плавкий материал

9. дефектный сварной шов

10. непрерывная подача электрического тока

11. электрическая дуга

12. источник электрического тока

**Сделайте фото всей вашей работы и отправьте на адрес электронной почты преподавателя.**