Оценочные материалы для промежуточной аттестации по дисциплине

Иностранный язык в профессиональной сфере

Код, направление подготовки	04.05.01 Фундаментальная и прикладная химия
Направленность (профиль)	Аналитическая химия
Форма обучения	Очная
Кафедра-разработчик	Кафедра лингвистики и переводоведения
Выпускающая кафедра	Кафедра химии

Типовые задания для контрольной работы

Типовые задания для контрольной работы

5 СЕМЕСТР

1. Identify these items:

1. It is a total number of items grouped together.
2. It is a decision or determination that is made after an experiment.
3. It is a small glass tube with a hole on one end and a squeezable bulb on the other. They are used to measure and move drops of liquid.
4. It is a collection of matter that can be separated into different substances using only physical means.
5. It is the effect of force applied to an area of a surface.
6. It is a material that cannot be separated into two or more different materials using physical means.
7. It is the measurement of how hot or cold something is.
8. It is the measurement of the amount of space something occupies.

2. Transform these sentences into passive or active voice

1. They make Rolls Royce cars in England.
2. Rice is grown in China.
3. The telephone was invented by Bell in 1876.
4. Thieves have stolen 2 pictures from the museum last night.
5. The factory will produce 10,000 cars next year.
6. She was given this watch by her aunt.
7. British policemen don’t carry guns.
8. Periodic Table was devised by Mendeleev.
9. They will publish the news tomorrow.

10. They were doing this experiment yesterday at 9am.

3. Choose the correct word in each of the following pairs enclosed in brackets.

1. Chemistry (includes/inclines) the study of elements and their compounds.
2. We can (defile/define) “universe” as all space and the matter around us.
3. The mechanical (properties/proprieties) of polymeric materials are very complex.
4. M. V. Lomonosov discovered the (law/low) of the conservation of matter.
5. Organic chemistry is a (breach/branch) of chemistry dealing with carbon and its compounds.
6. This vibrational resonance can (create/credit) new protons.
7. Chemists are trying to (impute/improve) the properties of plastics.
8. The experiments of ancient scholars contributed to the (development/devolution) of chemistry.

6 СЕМЕСТР

1. Which of the underlined parts of these sentences are correct?

1. I thought there was somebody in the house because there was *light/ a light* on inside.
2. *Light/ a light* comes from the sun.
3. I was in a hurry this morning. I didn’t have *time/ a time* for breakfast.
4. “Did you have a good vacation?” “Yes, we had *wonderful time/ a wonderful time*.
5. Sue was very helpful. She gave me some very useful *advice/ advices*.
6. I had to buy *a/ some* bread because I wanted to make some sandwiches.
7. It’s very difficult to find *a work/ job* at the moment.

2. Read the text about the Periodic Table and use the expressions to fill the gaps.

symbol, atomic weight, name, atomic number, group, row, alkali metals, halogens, noble gases, lanthanides, actinides, alkaline earth metals

The most convenient presentation of the chemical elements is in the periodic table of the chemical elements, which groups elements by _____ _____. Due to its ingenious arrangement, columns, or _____, and _____, or periods, of elements in the table either share several chemical properties, or follow a certain trend in characteristics such as atomic radius, electronegativity, electron affinity, etc. The main value of the periodic table is the ability to predict the chemical properties of an element based on its location on the table. The properties vary differently when moving vertically along the _____of the table, than when moving horizontally along the _____.

The periodic table was first devised in 1869 by the Russian chemist Dmitri Mendeleev. Mendeleev intended the table to illustrate recurring ("periodic") trends in the properties of the elements. The layout of the table has been refined and extended over time, as new elements have been discovered, and new theoretical models have been developed to explain chemical behaviour. Various layouts are possible to emphasize different aspects of behaviour; the most common forms, however, are still quite similar to Mendeleev's original design.

7 СЕМЕСТР

1. Put the verbs in brackets into the correct form.

Like many substances, water can (exist) in three phases. The phase (depend) on the surrounding temperature and pressure. A phase diagram can (illustrate) such conditions.

The solid form of water (call) ice. Freezing liquid water (form) ice. At sea level, the melting point of ice (be) 0°C. At this temperature, ice (go) through a phase transition and (become) liquid water.

Liquid water can (become) a gas by boiling or evaporation. The boiling point of water (be) 100°C at sea level. However, water (evaporate) into water vapor at lower temperatures. When water vapor (touch) a cool surface, it can (undergo) condensation. This (turn) it back in to a liquid.

Water sometimes (perform) other phase transitions. For instance, ice can (become) water vapor directly through sublimation. Similarly, water vapor going through deposition directly into ice (cause) frost. A; 0.01 °C and 611.73Pa, water (achieve) its triple point. At its triple point, water (exist) as a solid, gas, and liquid at once.

2. Complete the sentences. Use superlative or comparative forms of the words in brackets.

1. We stayed at _____hotel in town. (cheap)
2. Our hotel was _____than the others in the town. (cheap)
3. The United States is very large but Canada is _____.(large)
4. What's _____river in the world? (long)
5. He was a little depressed yesterday, but he looks _____today. (happy)
6. What is _____sport in your country? (popular)

3. Put the parts of the sentences in the right order.

1. (she won / easily / the game) _____
2. (slowly / the door / I closed) _____
3. (I / quite well / speak / Italian) _____
4. (tennis / does / play / he / every weekend?) _____
5. (so late / why / you come / home / did?) _____

4. Read the following article about environmental chemistry and fill the gaps with appropriate forms of the words in brackets. Use prefixes and suffixes.

Environmental chemistry is the_____(science) study of the_____(chemistry) and _____(biochemistry) phenomena that occur in _____ (nature) places. It can be defined as the study of the sources, reactions, transport, effects, and fates of _____ (chemistry) species in the air, soil, and water environments; and the effect of human activity on these. Environmental chemistry is an _____(discipline) science that includes _____(atmosphere), _____ (aqua) and soil chemistry, as well as _____(heavy) relying on _____(analysis) chemistry and being related to _____(environment) and other areas of science. Environmental chemistry involves first _____(understand) how the uncontaminated environment works, which chemicals in what concentrations are present, and with what effects. Without this it would be _____(possible) to _____(accurate) study the effects humans have on the environment through the release of chemicals.

8 СЕМЕСТР

1. Choose the correct form of the verb, singular or plural.

1. Physics was / were my best subject in school.
2. Can I borrow your scissors? Mine isn't / aren't sharp enough.
3. Do you think the people is / are happy with the government?
4. Gymnastics is / are my favourite sport.
5. The trousers you bought for me doesn't / don't fit me.

2. Underline the correct alternative.

1 She's the girl *which*/*who* has seven brothers.
2 They live in a house *that*/*who* has seven bedrooms.
3 It's in an area *which*/*where* there are lots of large houses.
4 She has a tiny room *which*/*who* is at the top of the house.
5 Her parents are the people *which*/*who* run the local supermarket.
6 It's the place *which*/*where* my parents like to shop.
7 Mum left her credit card there once *which*/*who* they brought back to our house.
8 That's how I met the girl *which*/*who* is now my best friend. Her name's Tania.

3 Fill in the gaps with the following words in their appropriate forms.
item, glassware, neck, laboratory, approximate, boiling tube, container, mass, weight, experiment, weigh

1. Laboratory _____ refers to a variety of equipment, traditionally made of glass, used for scientific _____and other work in science, especially in chemistry and biology ___ . There are many different kinds of laboratory glassware _____.
2. A _____ _____ is essentially a scaled-up test tube, being about 50% larger in every aspect.
3. A bottle is a small _____with a _____that is narrower than the body and a "mouth."
4. Rounded numbers are only _____.
5. _____is a measurement of how much matter is in an object; _____is a measurement of how hard gravity is pulling on that object. Your _____is the same wherever you are - on Earth, on the Moon, floating in space. But your _____depends on how much gravity is acting on you at the moment. You would _____less on the moon than on Earth,

Типовые вопросы к зачету

5 СЕМЕСТР

В соответствии с рабочей программой дисциплины промежуточная аттестация проводится в форме ЗАЧЕТА. Билет состоит из 2 вопросов:

1. чтение и перевод текста по специальности

2. реферирование научной статьи

1. Пример текста для оценки чтения и перевода

Discovery of Titanium

W. Gregor in England and M.H. Klaporth in Germany discovered titanium independently in the 1790s. Titanium was named by M FI Klaporth after the children of Gaia, the earth goddess of Greek mythology. In the initial period, the metal was rare and this was largely because of the fact that isolation from its ores was difficult and there was little demand for the metal.

However, the fact is that it is the seventh most abundant metal found in the earth's crust. It is up to 100 times as plentiful as everyday metals such as copper, zinc and nickel and 400 times more common than lead.

By the middle of the 20th century, titanium became famous and was considered a great discovery among the elements when it was found to have properties that suited ideally to the demands of modern technology. Titanium ores are now mined to the extent of 3 million tonnes each year, while 100 thousand tonnes of the metal itself are produced annually.

2. Пример текста для реферирования

Chromatography

How chromatography works

First, we need to understand the principle of differential solubility. The 'solubility' defines the maximum amount of a substance that will dissolves in a given volume of solvent. A substance will have different solubilities in different solvents, e.g. Sugar dissolves a lot in water, but not in oh, while wax dissolves in oil but not water (you can try this at home).

So if you had a mixture of substances, you could add it to a mixture of solvents. The substances in the mixture dissolve in the solvent which they are more soluble In. This separation is what is called chromatography. You can then separate the solvents, and find what substances (and how much) got dissolved in them by analytical methods.

Types of chromatography

There are many types, based on the nature of the solvent.

The simplest is paper chromatography. The substance to be tested is placed on a filter paper, which Is then dipped in a mixture of solvents. Common solvent mixtures are water and acetone, water and alcohol, or a mix of all three. As the solvent travels up the paper, different components of the substance dissolve in their solvents. As the solvent moves, the dissolved substance moves along with it.

Filter paper Is made of cellulose, which has a strong affinity for water; hence water travels the fastest up it. What's dissolved in water will rise with it and move to a greater distance than what's dissolved in another solvent. When the solvent has risen almost to the end of the paper, it is taken out, dried and subject to chemical testing.

Other types of chromatography

For advanced analysis, scientists use column chromatography, in which the solvent rises up a column of specially prepared matrix, rather than paper. In gas chromatography, the solvents are in the form of gases. In high pressure liquid chromatography (HPLC, pictured), the separation happens under high pressure.

Affinity chromatography is a special type, in which the chromatographic column itself acts as one solvent. As the substance passes through the column, it attaches to the medium, while impurities pass out with the solvent. This is very useful in purifying drugs.

You can try this interesting experiment. Take a narrow iron pipe a few cm long, and attach a small magnet on the inside. Now make a mixture of iron filings and sawdust in water. Pour it slowly into the iron pipe and collect the outflow at the other end. Pour the outflow down the pipe again a few times. Do you notice the iron filings stick to the magnet, and the sawdust come out in the outflow? You just experienced affinity chromatography!

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