

نام درس: زبان تخصصی

رشته تحصیلی: گرایش: شیمی (محض و کاربردی)

کد درس: ۱۱۱۴۰۲۸

تعداد سؤالات: ۲۸ تستی ۲۸ تکمیلی .. تشریحی ۳

زمان امتحان: تستی و تکمیلی ۵۰. تشریحی ۲۰ دقیقه

تعداد کل صفحات: ۵

A. Fill in the blank with the best chose:

- The substance that is dissolved in a solvent is called
a. solution b. solid c. solute d. solubility
- Science is knowledge From the study of behavior of Nature.
a. accept b. received c. real d. gained
- A particular natural is called a phenomenon.
a. event b. moment c. condition d. system
- If the hypothesis is correct then the finding is called
a. law b. theory c. hypothesis d. assumption
- In the early days of chemistry, it was. for one man to carry on this entire process alone.
a. interesting b. not real c. common d. hard
- Theof these early chemists to man's knowledge and understanding of Nature were very great.
a. contributions b. ignorance c. study d. power
- Today, it is much more common of teams of chemists to workon a single project.
a. single b. hard c. sleepy d. together
- There are several million known compounds, have systematic names.
a. in that b. by that c. all of which d. which
- The name of an ionic compoundof two words:
a. work b. consists c. create d. occupy
- There is one complication: metals form more than one type of positive ion.
a. define b. combine c. certain d. hard

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زمان امتحان: تستی و تکمیلی ۵۰، نسی تشریحی ۲۰ نسی

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11. To between these ions, the charge must be indicated in the name.
- a. create b. distinguish c. understand d. combine
12. When a pair of nonmetals forms only one..... that compound is named very simply.
- a. system b. reaction c. compound d. solvent
13. Compounds are much more.....than elements.
- a. abundant b. heavy c. denser d. hotter
14. Elements..... of their properties when they combine to form compounds.
- a. Keep all b. lose some c. retain some d. lose all
15. But the..... difference between things which live and things which do not live is not still clear.
- a. question b. fundamental c. great d. important
16. What is another name of homogeneous mixtures?
- a. aqueous solution b. solutions c. solids d. crystallized solutions
17. The properties of the X-raysby an element its atomic number.
- a. emitted, depend on b. emitted, depends on
- c. emitting, depending d. emission, depending on
18. What is the organic chemistry?
- a. It talks about nonliving materials
- b. Their talk about living material and carbon compounds
- c. It talks .about living organism and carbon
- d. they talk about carbon compounds

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زمان امتحان: تستی و تکمیلی، ۵۰ دقیقه تشریحی، ۲۰ دقیقه

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19. Which statements are correct?

a. Water is an element

b. Compounds are elements

c. Compounds are substances

d. water is a substance

20. Reaction occurs:

a. between products

b. between products and reactants

c. between two products

d. between reactants

C .Determine the correct meaning of the following words.

21. Donate

الف. گرفتن

ب. آوردن

ج. تولید کردن

د. دادن، هدیه کردن

22. Distribution

الف. مخلوط کردن

ب. پراکنده کردن

ج. شکستن

د. تولید کردن

23. Corrosion

الف. پاره شده

ب. سنگین شدن

ج. خرد شدن

د. خوردگی

24. Dissociation

الف. تجمع

ب. تراکم

ج. تفکیک

د. تبخير

25. Exposure

الف. ینہان بودن

ب. پراکنده بودن

ج. زیاد بودن

د. در معرض بودن

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D. Read this passage and answer the following related questions.

We may characterize a potentiometric titration as one in which the change of the emf of a galvanic cell during a titration is recorded as a function of added titrant. Although the major aim of this

procedure is the precise location of the equivalence point, thermodynamic information, including dissociation constants for weak acids a formation constants for complex ion, may be obtained from potentiometric titration curves.

Compared to other methods for the location of equivalence points, the technique of potentiometric titrometry offers a number of advantages. It is applicable to systems which are so brightly colored that visual methods of end-point detection are useless, and it is especially valuable when no internal

chemical indicator is available. Moreover, it eliminates subjective decisions concerning color changes of end-point indicators as well as the need for indicator blank corrections.

26. what is the main subject of this is passage?

- | | |
|-----------------------------|---------------------------|
| a. potentiometric titration | b. Galvanic cell |
| c. electromotive force | d. dissociation constants |

27. The real goal of the method is:

- | | |
|--------------------------|----------------------------------|
| a. emf measurement | b. location of equivalence point |
| c. dissociation constant | d. formation constants |

28. What is the advantage of potentiometric titration?

- a. it needs indicator blank correction
- b. it need colored indicator
- c. we should not be concern about color changes
- d. It can be used in high temperature solutions.

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E. Translate the following paragraph into Farsi.

1. Spectroscopy is a very useful technique for the investigation of optically active (chiral) molecules. Electronic and structural characteristics of the compounds can be probed by spectroscopy. Optically active molecule are very important in living organisms.

2. All changes in matter, whether chemical or physical, are accompanied by changes in the energy content of the matter. In the infeno of a forest fire, as wood is converted to ash and gases, it's energy content decreases, and that change in energy is relese as heat and light.

3. A common approach to preventing or limiting corrosion is to eliminate contact with the corrosive factores.