

نام درس: زبان تخصصی شیمی

رشته تحصیلی و کد درس: شیمی (۱۱۱۴۰۲۸)

تعداد سؤالات: تستی: ۴۰ تشریحی: ۵

زمان آزمون: تستی: ۶۰ تشریحی: ۶۰ دقیقه

آزمون نمره منفی دارد ○ ندارد ⊗

کد سری سؤال: یک (۱)

استفاده از: —

مجاز است.

امام علی (ع): برتری مردم به یکدیگر، به دانش‌ها و خردهاست؛ نه به ثروت‌ها و تبارها.

Part 1: Choose the best item (A, B, C, D).

- Chemistry provided advanced....., like silicon for computer and glass for optical fibers.
a. Materials b. object c. aircraft d. metals
- Chemical.....describe events at the macroscopic level.
a. phenomena b. equations c. matter d. system
- The level dealing with the properties of small, invisible object is called.....
a. microscopic b. macroscopic
c. electrons d. matter
- Once a hypothesis has been formulated, scientists design further.....and carefully controlled tests.
a. theory b. law c. experiments d. hypothesis
- Scientists develop....., possible explanations of the laws or the observations.
a. law b. science c. scientific method d. hypotheses
- The matter is anything that has.....
a. electrons b. air c. chemical property d. mass
- Liquid is aform of matter.
a. gaseous b. fluid c. liquid d. rigid
- A(an).....is a substance composed of only one kind of atom.
a. matter b. element c. particle d. electron
- The properties of the x-ray.....by an element.....its atomic number.
a. emitted, depends on b. emitted, depend on
c. emitting, depending d. emission, depending on

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10. The charged particles were the same.....of the metal be.....for the cathode.
 a. because, made b. although, use c. regardless, used d. instead, apply
11. A drop of a thick liquid or viscous substance is a.....
 a. blob b. concrete c. dense d. consistent
12. Atoms have anstructures.
 a. intrinsic b. distribute c. internal d. charged
13. A compound is acombination of atoms more than one element.
 a. similar b. dense c. increment d. specific
14. Calcium is a (an)
 a. noble gas b. alkali metal c. transition metal d. alkaline earth metal
15.means hit by accident when moving.
 a. collide b. compress c. evacuate d. enrich
16. The particles move inlines until they collide.
 a. zig-zag b. curved c. straight d. circular
17. They measured how.....of a gas.....its pressure, volume and density.
 a. density, charged b. temperature, affected
 c. volume, increase d. pressure, affected
18. The minor component in a solution, dissolved in the solvent is.....
 a. solute b. precipitation c. liquid d. solution
19. Chromatography.....on the different.....of substances to absorb, or stick to.....
 a. depends, color, surface b. relies, color, surface
 c. relies, abilities, surface d. takes, abilities, bulk
20. Homogeneous mixtures are also called.....
 a. aqueous solution b. solutions
 c. solids d. crystallized solution
21. In a precipitation reaction, when two strong electrolyte solutions are mixed.....forms.
 a. a soluble solid product b. an insoluble solid product
 c. an insoluble liquid product d. a half soluble solid product

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22. Haloalkanes are alkanes in which at least.....hydrogen atom has been replaced. by a halogen atom.

- a. one b. two c. four d. three

23. A metal conducts electricity, has aand is malleable and ductile.

- a. density b. luster c. sensitivity d. toxicity

24. An unsaturated hydrocarbon has onlydouble bond.

- a. three b. two c. one or more d. four

25.dominates the properties and reactions of many organic compounds.

- a. Nucleophiles b. Functional groups c. Aromatic compounds d. Plastics

26. Pesticide is a substance for destroying.....

- a. insects b. animals c. chemicals d. trees

27. Plastics are simple.....that can be molded into different shapes.

- a. chemicals b. molecules c. hydrocarbons d. polymers

28. Chlorine atoms are much.....than chlorine molecules.

- a. more electronegative b. more reactive
c. more negative d. more basic

29. In real gases, attractions have..... range than repulsions.

- a. short b. longer c. longest d. the shortest

30. Intensive means:

- a. شدید b. بزرگ c. تکمیل d. سیال

31. Dense means:

- a. چگال b. انحراف c. واقعی d. شتاب دادن

32. Solute means:

- a. محلول b. حلال c. حل شونده d. خالص

33. Extract means:

- a. تبخیر b. خوراک c. استخراج d. تغلیظ

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34. Stir means:

- a. پاشیدن b. هم زدن c. وزن کردن d. تکان دادن

35. Occupy means:

- a. fill or take up b. obey c. ratio d. release

36. Vigorous means:

- a. set free b. strike c. strong and full of energy d. strong body

37. Evaporate means:

- a. remove b. purify
 c. dissolve d. turn from liquid to vapour

38. Mingle means:

- a. move b. mix together c. perfume d. contaminate

39. Accurate means:

- a. gradually b. fast c. correct in all details d. look at closely

40. Proportion means:

- a. the ratio of one thing to another b. crush or squeeze
 c. single d. breath out

Part 2: translate the following passage to the Farsi.

1. Mass spectroscopy is also used in structural chemistry and separation science to measure the virtual mass of atom, molecule, or fragment of a molecule. (۱ نمره)

2. Homogeneous mixture are called solutions. Many of the materials around us are solutions. When we use the everyday term dissolving, we mean the process of producing a solution. (۱ نمره)

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3. Crystallization is based on differences in solubility. The solubility of a substance is an amount that dissolves in a fixed volume of solvent at a given temperature. This method applies the fact that many substances are more soluble in hot solvent than in cold. (نمره ۱/۲۵)

4. Many pesticides are aromatic compounds with several halogen atoms. Because pesticides have low overall polarity, they tend to be fat soluble; so when we eat food containing them, they are partitioned between the blood and fatty tissues. (نمره ۱/۵)

5. One way to limit the production of more highly substituted alkanes is to use a large excess of the alkanes; then most reactions take place with the original hydrocarbon rather than with any haloalkanes produced in the reaction. (نمره ۱/۲۵)