<u>※ استفاده از فرهنگ لغات مجاز نیست.</u>

Complete the following sentences by choosing the best choice (a, b, c or d)

1. <u>Pre</u> in the word <u>preimage</u> means………… .

   a. after   b. before   c. one   d. two

2. The suitable prefix for <u>linear</u> is ………… .

   a. bi-   b. ex-   c. im-   d. macro-

3. Each corner point in the honeycomb is…………by exactly 3 hexagons.

   a. predicted   b. surrounded   c. assisted   d. attracted

4. The simplest regular polygon is a/an………… .

   a. equilateral triangle   b. square

   c. octahedron   d. hexagon

5. <u>Counter</u> in the word <u>counter example</u> means………… .

   a. two   b. to undo something

   c. lack of   d. in an opposite

6. <u>Semi</u> in the word <u>semicircle</u> means………… .

   a. under   b. after   c. befor   d. half

7. As a wheel rolls along a straight line, a point on its rim follows a path called a/an………… .

   a. circle   b. ellipsoid   c. cycloid   d. parabola

8. One can prove the following assertion by………… .

   a. mathematical induction   b. axiomatic set theory

   c. associative operation   d. set theory

9. Pupils learn how to…………fractions when they study mathematics in elementary schools.

   a. simply   b. simplify   c. appear   d. distribute

10. The following property of natural number is called………… .

$$(m . n) . p = m . (n . p)$$

   a. cancellation law   b. commutative law

   c. distributive law   d. associative law

کارشناسی

دانشگاه پیام نور

نیمسال اول ۸۸-۸۷

نام درس: زبان تخصصی

رشته تحصیلی-گرایش: ریاضی (محض و کاربردی)

کد درس: ۱۱۱۱۰۵۸

تعداد سؤال: تستی ۲۰ تکمیلی -- تشریحی ۱۰

زمان امتحان: تستی و تکمیلی ۴۰ دقیقه تشریحی ۴۰ دقیقه

تعداد کل صفحات: ۳

11. Every nonempty set $S \subseteq R$ which is bounded above has………… .

   a. a lower element   b. a greatest lower bound

   c. a least upper bound   d. a largest element

12. Every permutation can be decomposed as the product of some even permutation called ………… .

   a. transposes   b. ring   c. sets   d. structure

13. The science of numbers is called………… .

   a. arithmetic   b. mathematics   c. algebra   d. geometry

14. People form the…………of a number by multiplying the number by itself.

   a. square   b. corrosion   c. integer   d. completion

15. The main problem with Roman numerals was that they had no…………for zero.

   a. system   b. equation   c. purpose   d. symbol

16. Every set which is in one-to-one correspondense with R is………… .

   a. countable   b. uncountable   c. finite   d. uncountablyfinite

17. Statistics a science of concepts and methods chiefly used to collect and…………complete data.

   a. increase   b. estimate   c. interpret   d. produce

18. Omar Khayyam's work on…………was translated into French.

   a. geometry   b. Jalali solar calender

   c. poetry   d. algebra

19. Another…………that is used instead of $f'(x)$ is $D_x(f(x))$.

   a. symbol   b. function   c. factor   d. derivative

20. Computers provide the means for greater speed and………… in working with ideas than had previously been possible.

   a. calculation   b. accuracy   c. practice   d. relation

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هر یک از عبارات زیر را به فارسی روان برگردانید.

1. The stem of a word is its main form, which is found in all the other forms of the word.

2. They prepare for the reception of the honey the vessels called honeycombs, with cells all equal, similar and adjacent, and hexagonal in form.

3. The lawyer tried to convince the jury. He gave many convincing reasons. The jury was finally convinced.

4. Five positions of the wheel are shown in the diagram; the first and last show the whel with the point on the rim touching the ground; the other three show intermediate positions in one revolution: after turning $90^0, 180^0$, and 270^0.

5. We verify the cancellation law and leave the second to the student as exercises.

6. The deficiency in the system of rational numbers is a bit more subtle; we call it completeness.

7. Decimals are used instead of fractions in performing the various mathematical operations because decimals are easier to work with.

8. Theorem. Let V be finite-dimensional, and let $v_1,...,v_m \in V$ be linearly independent. Then

   a. the sequence can be extended to a basis $v_1,...,v_n \in V (n \geq m)$;

   b. if $e_1,...,e_p$ is a basis for V, then $m \leq p$.

9. The process by which $f'(x)$ is computed is called implicit differentiation, and $f(x)$ is known as an implicit function since f is not given explicitly.

10. Early man used his fingers and his toes as the first counting aid.