

Correction of the Exam .



Technical English –L1 Mathematics Students Exam

Instructions: Circle the correct answer letter

Section 1: Core Mathematical Concepts

1. A mathematical statement that is proven true based on axioms and definitions is called a:
 - a) Variable
 - b) Lemma
 - c) Theorem
 - d) Function
2. Which term refers to basic assumptions or starting points in a mathematical system?
 - a) Axioms
 - b) Corollaries
 - c) Propositions
 - d) Variables
3. A "Corollary" is best described as:
 - a) A statement that has not yet been proven
 - b) A symbol representing an unknown quantity
 - c) A direct result or extension of a theorem
 - d) The starting point of all mathematical truths

Section 2: Symbols and Set Theory

6. What does the symbol \in represent?
 - a) Subset
 - b) Intersection
 - c) Element of
 - d) Union
7. The symbol \cap refers to the "Intersection" of two sets, which means:
 - a) Elements in either set A or B or both
 - b) Elements in set A but not in B
 - c) Elements in both sets A and B
 - d) Elements not in A
8. Which symbol represents the set of all Integers?
 - a) \mathbb{N}
 - b) \mathbb{Z}

9. In set theory, what are "Disjoint Sets"?
 - a) Sets where every element of A is in B
 - b) Sets with no elements in common ($A \cap B = \emptyset$)
 - c) The set of all real numbers
 - d) A collection of complex numbers
10. Is "Infinity (∞)" considered a real number according to the text?
 - a) True
 - b) False

Section 3: Logic and Operations

11. The logical operator " \Rightarrow " (Implies) means:
 - a) P if and only if q
 - b) Both statements must be true
 - c) If p then q
 - d) The negation of p
12. The absolute value $|x|$ represents:
 - a) The square root of x
 - b) The distance of x from 0 on the number line
 - c) x multiplied by itself
 - d) A number that can only be divided by 1 and itself

Section 4: Grammar and Language

13. Which tense is used for general truths or scientific facts?
 - a) Future Simple
 - b) Past Simple
 - c) Present Simple
 - d) Present Continuous
14. Which sentence about geometry is correct?
 - a) A square be a rectangle.
 - b) A square am a rectangle.
 - c) A square is a rectangle.
 - d) A square are a rectangle

16. Complete the question regarding a variable: " _____ the variable "x" represent a prime number?"

- a) Does
- b) Is
- c) Are
- d) Do

17. What is the correct form of the verb "to have" in this context?

"An equilateral triangle _____ three equal sides."

- a) haves
- b) have
- c) has
- d) is having

18. Fill in the blank with the correct form of "to be":

"The coordinates (x, y) _____ essential for graphing."

- a) is
- b) am
- c) be
- d) are

20. Choose the correct negative sentence for an algebraic rule:

- a) Negative numbers not have square roots in the real number system.
- b) Negative numbers don't have square roots in the real number system.
- c) Negative numbers doesn't have square roots in the real number system.
- d) Negative numbers is not have square roots in the real number system.

21. Complete the sentence about a mathematical constant:

"The value of π (pi) _____ approximately 3.14."

- a) are
- b) is
- c) am
- d) be

22. Which question about a function is correct?

- a) Where do the graph intersect the axis?
- b) Where does the graph intersects the axis?
- c) Where does the graph intersect the axis?
- d) Where is the graph intersect the axis?

21. Select the correct form for the verb "to do" in a proof:

"The calculation _____ not require a calculator."

- a) do
- b) does
- c) doing
- d) is

22. What is the English translation for "القيمة _____ العظمى"?

- a) Minimum
- b) Maximum
- c) Supremum
- d) Infimum

23. How do you say "محدودة من السفل" in English?

- a) Bounded above
- b) Bounded below
- c) Bounded subset
- d) Lower-bound

24. Which term translates to "عنصر حيادي"?

- a) Property
- b) Transitivity
- c) Identity element
- d) Particular case

25. The phrase "برهان باستعمال العكس النقيض" means:

- a) Proof by recurrence
- b) Proof by cases
- c) Proof by contrapositive
- d) Direct proof

26. "ان نفرض" is translated as:

- a) To define
- b) We assume that
- c) It is a property
- d) Particular case

Good Luck