

There is exactly one correct solution to this test. When a question refers to its "answer" it means the actual answer, not the letter it corresponds to. When a question refers to the "answer choice" it is referring to the letter you might bubble on your scantron answer sheet. Good luck and have fun. *Hint:* you may want to try Questions 12, 13, and 30 first.

1) The first question on this test which has correct answer choice E is:

- A) 5 B) 4 C) 3 D) 2 E) 1

2) There is a *straight* of answers on this test that is of length 5, which means there are 5 questions in a row whose answers choices are A, then B, then C, then D, then E. What question begins this *straight*?

- A) 13 B) 1 C) 27 D) 19 E) 14

3) The first pair of consecutive questions with the same correct answer choice is:

- A) 2 and 3 B) 11 and 12 C) 6 and 7 D) 19 and 20 E) 29 and 30

4) This question's correct answer choice is the same as how many *other* questions' correct answer choice?

- A) 1 B) 2 C) 3 D) 5 E) 7

5) The next question with the same correct answer choice as this question's is:

- A) 16 B) 17 C) 18 D) 19 E) 20

6) This question's number is the number of times you would correctly answer choice ____

- A) None of the following B) All of the following C) C D) A E) E

7) The first question with correct answer choice E immediately follows the first question with correct answer choice:

- A) A B) B C) C D) D E) E

8) The correct answer to this question is not the same as the correct answer choice for this question.

A) A B) B C) D D) C E) E

9) Here's a freebie: choose answer D

A) D B) B C) A D) C E) E

10) What is the highest-numbered question with the same answer choice as this question?

A) 24 B) 27 C) 29 D) 27 E) 18

11) Of all questions written for this test, this question was written 24th. What is the correct answer choice to question 24?

A) A B) B C) C D) D E) E

12) The correct answer choice to Question 13 is:

A) D B) C C) B D) E E) A

13) The correct answer choice to Question 12 is

A) D B) C C) A D) B E) E

14) The number of questions whose correct answer choice is a consonant is:

A) prime B) even C) a perfect square D) divisible by 5 E) perfect

15) The following statement is a true fact: The number of correct answer choices A is the same as the number of correct answer choices B and the same as D. Compute the difference between the number of correct answer choices C and E.

- A) 0 B) 1 C) 2 D) 3 E) 4

16) Sixteen is this test's author's 13th favorite number. The answer to this question is the same as the answer choice to question $16^{13} \pmod{13}$.

- A) A B) B C) C D) D E) E

17) Let T be the number of the question that satisfies to following property: Both questions T and $(T - 2)^2 - 2$ have correct answer D. Compute the value of T .

- A) 8 B) 7 C) 6 D) 5 E) 4

18) Let X be the number of the only question that has a correct answer choice which is alphabetically 2 spots after the correct answer choice to question $X - 1$. What is the value of X ?

- A) 30 B) 15 C) 21 D) 26 E) 14

19) How many questions after this one have the same correct answer choice as this one?

- A) 2 B) 3 C) 4 D) 5 E) 6

20) The number of questions on this test whose correct answer choice appears in the word BEDROCK is:

- A) 13 B) 30 C) 17 D) 19 E) 24

21) The correct answer choice to this question is the same as the previous question **and** the following question:

- A) A B) B C) C D) D E) E

22) The answer choice E is the correct choice for exactly two odd-numbered problems. What is the positive difference of those two problem numbers?

- A) 12 B) 10 C) 13 D) 18 E) 16

23) The number of times you should mark E on your scantron is exactly one less than the number of times you should mark A. The number of times you should mark C on your scantron is exactly two more than the answer to this question

- A) A B) B C) C D) E E) D

24) The number of correct answer choices A on this test is known to be a divisor of this question. What is the number of correct answer choices A on this test?

- A) 3 B) 4 C) 6 D) 8 E) 12

25) The only even numbered problem with correct answer choice A is:

- A) 14 B) 18 C) 20 D) 24 E) 30

26) This is the last question on the test with correct answer choice:

- A) A B) B C) C D) D E) E

27) The correct answer choice to the last question on this test is:

- A) A B) D C) B D) E E) C

28) The number of correct answer choices ___ is a divisor of this question number.

- A) A B) B C) C D) D E) E

29) Previous to this test question, the answer choice E has been the correct answer choice how many times?

- A) 5 B) 7 C) 9 D) 8 E) 6

30) Consider the function defined by $f_n(x) = nx^n f_{n-1}(x) + 1$. Given that $f_0(x) = x + 1$, compute $f_7(1)$.

- A) 8660 B) 17320 C) 9370 D) 18740 E) 5040