



Sukkur IBA University

Merit-Quality-Excellence

SAMPLE TEST PAPER

(National Talent Hunt Program-2019)

PART-I (ENGLISH) 50 QUESTIONS
PART-II (MATHEMATICS) 50 QUESTIONS

SYLLABUS OF THE TEST:

PART-I (ENGLISH)

- Reading Comprehension
- Vocabulary Synonym
- Vocabulary Antonym
- Use of Preposition
- Error Detection
- Use of Verbs
- Use of Pair of Words
- Use of Tenses

PART-II (MATHEMATICS)

- Real Number System
- Algebraic Expressions
- Linear and Quadratic Equations
- Absolute Value and Linear Inequalities
- Relations and Functions
- Systems of Equations
- Word Problems and Applications
- Area, Perimeter, Circumference, Volume
- Fractions, Decimals, Percent
- Ratio, Proportion, Variation, Unit Rate

ERROR DETECTION

1. George has not completed the assignment yet and Maria hasn't neither.
A B C D
2. The sun rose before I got up.
A B C D

USE OF VERBS

1. **Lucy is a good girl andfor a brother.**
A. long B. longs C. is longing D. longed
2. **Mango is fruit that I.....**
A. am always liking B. have been always liking
C. have always liked D. have been always liked

USE OF PAIRS OF WORDS:

1. **Some wicked madeof their idol.**
A. fun, fans B. fan, fun C. fans, fun D. fans, fans
2. **The male child who is the only..... to the property has long, smooth, golden.....**
A. hare, heir B. heir, hare C. hairs, hare D. heir, hair

USE OF TENSES

1. **I wish I were young forever.**
A. Present indefinite tense B. Present perfect tense
C. Past indefinite tense D. Past perfect tense
2. **Death toll of the earthquake victims is feared to have increased.**
A. Past indefinite tense B. Past perfect tense
C. Present indefinite tense D. Present perfect tense

PART-II
MATHEMATICS

Real Number System

- Which set contains the number π ?
A. integers B. rational numbers C. natural numbers D. irrational numbers
- The diameter of a red blood cell is approximately 0.00074 centimeter.
Expressed in scientific notation, this number is
A. 7.4×10^{-4} cm B. 7.4×10^4 cm C. 74×10^{-3} cm D. 74×10^3 cm
- If x and y are any two whole numbers, which statement is always true?
A. $xy = yx$ B. $\frac{x}{y} = \frac{y}{x}$ C. $x - y = y - x$ D. $x + 3y = y + 3x$

Algebraic Expressions

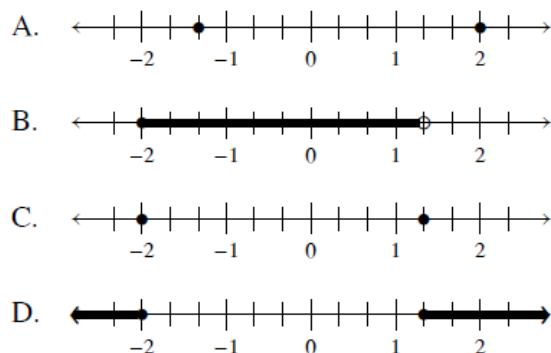
- What is the sum of $\frac{-x+7}{2x+4}$ and $\frac{2x+5}{2x+4}$?
A. $\frac{x+12}{2x+4}$ B. $\frac{3x+12}{2x+4}$ C. $\frac{x+12}{4x+8}$ D. $\frac{3x+12}{4x+8}$
- If Ann correctly factors an expression that is the difference of two perfect squares, her factors could be
A. $(2x+y)(x-2y)$ B. $(2x+3y)(2x-3y)$ C. $(x-4)(x-4)$ D. $(2y-5)(y-5)$

Linear and Quadratic Equations

- Which value of x is the solution of the equation $\frac{1}{7} + \frac{2x}{3} = \frac{15x-3}{21}$?
A. 6 B. 0 C. $\frac{4}{13}$ D. $\frac{6}{29}$
- If $\frac{a}{x} + 1 = \frac{c}{x}$, which is an expression for x in terms of c and a ?
A. $x = c + a$ B. $x = c - a$ C. $x = a - c$ D. $x = a + c + 1$

Absolute Value and Linear Inequalities

- Which is a graph of the solution set of $|3x+1|=5$?



2. Which number is *not* a member of the solution set of the inequality $4x \geq 18$?

- A. 4.4 B. 4.5 C. 4.6 D. 4.7

Relations and Functions

1. The domain for $f(x) = x^2 - 3$ is $0 \leq x < 4$. The smallest value in the range of $f(x)$ is

- A. 0 B. 16 C. -3 D. 4

2. If $f(x) = |x^3 - 3|$, then $f(-1)$ is equivalent to

- A. 0 B. 2 C. -2 D. 4

Systems of Equations

1. Which ordered pair is the solution to this system of equations?

$$\begin{aligned} y &= x + 4 \\ x + y &= 2 \end{aligned}$$

- A. (1, 5) B. (0, 2) C. (-1, 3) D. (-4, 0)

Word Problems and Applications

1. The formula for converting temperatures in degrees Celsius to degrees Fahrenheit is $F = \frac{9}{5}C + 32$. If the temperature is 20°C , what is the temperature in degrees Fahrenheit?

- A. 68 B. 43.1 C. 33.8 D. 4

2. Larry has 7 more dimes than nickels, for a total value of \$1.45. If n represents the number of nickels, which equation could be used to find the number of nickels Larry has?

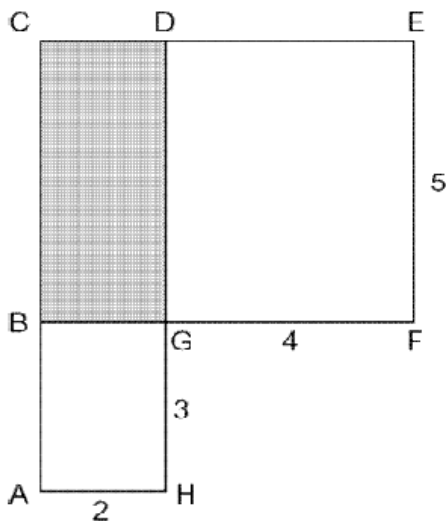
- A. $n + (n + 7) = 145$ B. $5n + 5(n + 7) = 145$ C. $5n + 10(n + 7) = 145$ D. $15(n + n + 7) = 145$

Area, Perimeter, Circumference, Volume

1. A garden in the shape of an equilateral triangle has sides whose lengths are 10 meters. What is the area of the garden?

- A. 25 m^2 B. $25\sqrt{3}\text{ m}^2$ C. 50 m^2 D. $50\sqrt{3}\text{ m}^2$

2. In the accompanying figure, $ACDH$ and $BCEF$ are rectangles. $AH = 2$, $GH = 3$, $GF = 4$, and $FE = 5$. What is the area of $BCDG$?



- A. 6 B. 8 C. 10 D. 20

Fractions, Decimals, Percent

1. It takes a snail 500 hours to travel 15 miles. At this rate, how many hours will it take the snail to travel 6 miles?
A. 0.18 B. 5.56 C. 150 D. 200
2. A baseball player successfully hits the ball 30% of the time. If he gets 450 chances to hit the ball in a season, what is the total number of times that he will successfully hit the ball?
A. 30 B. 135 C. 420 D. 1500

Ratio, Proportion, Variation, Unit Rate

1. Rashawn bought a CD that cost \$18.99 and paid \$20.51, including sales tax. What was the rate of the sales tax?
A. 5% B. 2% C. 3% D. 8%
2. A cake recipe calls for 1.5 cups of milk and 3 cups of flour. Seth made a mistake and used 5 cups of flour. How many cups of milk should he use to keep the proportions correct?
A. 1.75 B. 2 C. 2.25 D. 2.5