

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|--|---|
| 1 | Question Image | A. A = C B. A = B C. B = C D. None of these |
| 2 | How many arrangements of the letters of the word MISSISSIPPI, taken all together can be made? | |
| 3 | If one end of the diameter of the circle $2x^2 + 2y^2 - 8x - 4y = 2 = 0$ is (2, 3), the other end is: | A. (2,1) B. (-2,1) C. (2,-1) D. (1,-1) |
| 4 | How many numbers are there between 103 and 750 which are divisible by 6 | A. 125 B. 107 C. 108 D. 113 |
| 5 | Question Image | |
| 6 | In set builder notation the set {0, 1, 2,, 100} can be written as | |
| 7 | $(f \circ g)'(x) = f'(g(x))g'(x)$ is derivative by | A. Chain rule B. Reciprocal rule C. Power rule D. Product rule |
| 8 | Question Image | |
| 9 | Question Image | A. 0 B. -1 C. 1 D. 2 |
| 10 | Question Image | A. A natural number B. A rational number C. An irrational number D. A whole number |
| 11 | The domain of the function $y = \sin x$, is | A. $-\pi/2 \leq x \leq \pi/2$ B. $\pi/2 \leq x \leq \pi$ C. $-2\pi \leq x \leq 2\pi$ D. $-1 \leq x \leq 1$ |
| 12 | A second degree equation in which coefficients of x^2 and y^2 are equal and there is no product term xy represents: | A. a parabola B. a circle C. an ellipse D. a pair of lines |
| 13 | Question Image | D. all are correct |
| 14 | The point R dividing externally the line joining the points P(x_1, y_1) and Q(x_2, y_2) in the ratio $k_1 : k_2$ has the coordinates | |
| 15 | The set $\{\{a, b\}\}$ is | A. Infinite set B. Singleton set C. Two points set D. None |
| 16 | If A(x_1, y_1), B(x_2, y_2) and C(x_3, y_3) are the vertices of a triangle then its centroid is | |
| 17 | Question Image | |
| 18 | If one root of the equation $ix^2 - 2(i+1)x + (2-i) = 0$ is $2-i$, then the other root is | A. -i B. $2+i$ C. i D. $2-i$ |
| 19 | If $A \cap B = B$, then $n(A \cap B)$ is equal to | A. $n(a)$ B. $n(a) + n(c)$ C. $n(c)$ D. None of these |

If $x - 1$ is a factor of $x^4 - 5x^2 + 4$ then other factor is

- A. $(x + 2)^2(x - 1)$
- B. $(x + 2)(x - 1)^2$
- C. $(x + 2)(x^2 - x - 2)$
- D. $(x + 2)^2(x - 1)^2$