

Mathematics General Science Test Medium Mode


| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | The graph of $y < 2$ is the | A. Left half plane B. upper half plane C. Right half plane D. Lower half plane |
| 2 | If the roots of $ax^2 + b = 0$ are real and distinct then | A. $ab \geq 0$ B. $a = 0$ C. $ab \leq 0$ D. $a \geq 0, b \geq 0$ |
| 3 | Question Image | A. $e^{x^2} + c$ B. $e^{-x^2} + c$ C. $x e^{x^2} + c$ D. not possible |
| 4 | Question Image | A. 0 B. 1 C. 2 D. 4 |
| 5 | Question Image | A. Principle of equality of fractions B. Rule for product of fraction C. Rule for quotient of fraction |
| 6 | Two circles $x^2 + y^2 + 8x - 9 = 0$ and $x^2 + y^2 + 6y + k = 0$ touch internally if the value of k is | A. $k = 9$ B. $k = \pm 9$ C. $k = -9$ D. $k = 11$ |
| 7 | Question Image | A. $R/[0,4]$ B. $R/(0,4)$ C. $(0,4)$ D. $[0,4]$ |
| 8 | Question Image | |
| 9 | The discriminant of the quadratic equation $ax^2 + bx + c = 0$ is | A. $b^2 - 4ac$ B. $b^2 + 4ac$ C. $4ac - b^2$ D. $a^2 - 4ac$ |
| 10 | If $a > b$ or $a < b$ then $a = b$ is a | A. Additive property B. Transitive property C. Trichotomy property of inequality |
| 11 | Which of the following ordered pair is a solution of the inequality $x + 2y < 6$? | A. (2,3) B. (2,2) C. (6,0) D. (1,1) |
| 12 | Question Image | |
| 13 | Question Image | A. $x^3 - x^2 + x + c$ B. $6x - 2 + c$ C. $x^3 - 2x + c$ |
| 14 | The domain of an infinite sequence is a | A. Set of natural numbers B. R C. Subset of N D. None of the above |
| 15 | Equation of the chord of contact to the tangents drawn from $(-3,4)$ to the circle $x^2 + y^2 = 21$ | A. $-3x + 4y = 21$ B. $4x - 3y = 0$ C. $-3x + 4y = 25$ D. None of these |
| 16 | If $ax^2 + bx + c = 0$ is satisfied by every value of x, then | A. $b = 0, c = 0$ B. $c = 0$ C. $b = 0$ D. $a = b = c = 0$ |
| 17 | For all points (x,y) on y-axis | A. x is positive B. $x = 0$ C. x is negative |

C. ~~A = B~~ negative
D. $y = 0$

18 If n is odd then the middle terms in the expansion of $(a + x)^n$ are

19 The second degree equation of the form $Ax^2 + By^2 + Gx + Fy + C = 0$ represent hyperbola if

- A. $A = B \neq 0$
- B. $A \neq B$ and both are of same sign
- C. $A \neq B$ both are of opposite sign
- D. Either $A = 0$ or $B = 0$

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- A. An expression
- B. Rational fraction
- C. Equation
- D. Identity