

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | If $f(a) = b^2$ and $g(c) = d$ where $c = b^2$ then $(g \circ f)(a)$ is | A. α B. c C. b D. d |
| 2 | The vertex of the equation $y^2 = 4ax$ is: | A. (2, -2) B. (1, 1) C. (0, 0) D. (2, 2) |
| 3 | The interval in which $f(x) = x^3 - 6x^2 + 9x$ is increasing | A. $1 < x < 3$ B. $x < 1$ and $x > 3$ C. $x \geq 1$ and $x \leq 3$ D. $-\infty < x < \infty$ |
| 4 | In \mathbb{R} , the multiplicative inverse of a is | A. 0 B. 1 C. $-a$ D. $1/a$ |
| 5 | Question Image | |
| 6 | Write down the power set of $\{9, 11\}$ | |
| 7 | Question Image | |
| 8 | The set of the first elements of the ordered pairs forming a relation is called its | A. Relation in B B. Range C. Domain D. Relation in A |
| 9 | Matrices $A = [a_{ij}] 2 \times 3$ and $B = [b_{ij}] 3 \times 2$ are suitable for | A. BA B. $A^{²}$ C. AB D. $B^{²}$ |
| 10 | Question Image | A. 120 B. 5 C. 4 D. 6 |
| 11 | If S and P are the sum and the product of roots of a quadratic equation, then the quadratic equation is | A. $x^{²} + Sx - P = 0$ B. $x^{²} - Sx + P = 0$ C. $x^{²} - Sx - P = 0$ D. $x^{²} + Sx + P = 0$ |
| 12 | Question Image | D. none of these |
| 13 | The set $\{1, -1, 1, -1\}$, form a group under | A. Addition B. Multiplication C. Subtraction D. None |
| 14 | If $A(a, b)$ lies on $3x + 2y = 13$ and point $B(b, a)$ lies on $x - y = 5$ then equation of AB is | A. $x - y = 5$ B. $x + y = 5$ C. $x + y = -5$ D. $5x + 5y = 21$ |
| 15 | Which of the following is an identity matrix? | D. none of these |
| 16 | Question Image | |
| 17 | A matrix with a single column is called | A. Column matrix B. Row matrix C. Identity matrix D. Null matrix |
| 18 | Question Image | |
| 19 | If A is a non singular matrix then $A^{-1} =$ _____ | |
| 20 | Question Image | A. $(2x + a + b + c)$ B. $(a + b + c)$ |

C. $(a+b+c+x)$
D. 0