

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|---|---|
| 1 | The coefficient of x^{18} in $(ax^4 - bx)^9$ after expansion is | A. $84a^3b^6$ B. $22a^3b^6$ C. $27a^4b^5$ D. $28a^3b^6$ |
| 2 | If a, β are the roots of $ax^2 + bx + c = 0$, the equation whose roots are doubled is | A. $ay^2 + 2by + c = 0$ B. $ay^2 + 2by + 4c = 0$ C. $ay^2 + 2by + c = 0$ D. $ay^2 + by + 4c = 0$ |
| 3 | Question Image | |
| 4 | Question Image | A. 360° B. 180° C. 90° D. None of these |
| 5 | Question Image | |
| 6 | Question Image | |
| 7 | The equation of the directrix of the parabola $x^2 = 4ay$ is | A. $x + a = 0$ B. $x - a = 0$ C. $y + a = 0$ D. $y - a = 0$ |
| 8 | $\sin 50^\circ - \sin 70^\circ + \sin 10^\circ$ is equal to | A. 1 B. 0 C. $1/2$ D. 2 |
| 9 | The probability that the sum of dots appearing in two successive thrown of two dice, in every time 7 is | A. $1/5$ B. $1/36$ C. $1/7$ D. $1/63$ |
| 10 | Question Image | A. -1 B. 0 C. 1 D. None of these |
| 11 | Question Image | A. 0 B. Independent of a C. Independent of b D. Independent of c |
| 12 | A function of the form $p(x)/Q(x)$ is called: | A. Rational function B. Logarithmic function C. Exponential function D. Hyperbolic function |
| 13 | $\forall x, y \in \mathbb{R}$ and $x < 0, y < 0$, which one is true | A. $xy < 0$ B. $xy = 0$ C. $xy > 0$ D. None of these |
| 14 | Question Image | |
| 15 | Range of $\cot \theta$ is | A. $(-\infty, \infty)$ B. $(-1, +1)$ C. $(-5, +5)$ D. Set of even numbers only |
| 16 | If n is not natural number, then the expansion $(1 + x)^n$ is valid for | |

| | | |
|----|--|---|
| 17 | a chord passing through the focus of a parabola is called a: | A. Focal chord B. Latus rectum C. Tangent D. Directrix |
| 18 | Question Image | A. A^2 B. A^2t C. $-A$ D. A |
| 19 | Question Image | |
| 20 | Question Image | |