

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | If $f(x) = ax^2$, and $a > 0$, then the lowest point on the parabola is called. | A. Vertex of parabola B. Co-ordinates of parabola C. Roots of the equation D. Coefficient of the equation |
| 2 | The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles 30° with the longer side, the length of the longer diagonal is | |
| 3 | A function of the form $p(x)/Q(x)$ is called: | A. Rational function B. Logarithmic function C. Exponential function D. Hyperbolic function |
| 4 | If the roots of $ax^2 + bx + c = 0$ ($a > 0$) be greater than unity, then | A. $a + b + c = 0$ B. $a + b + c > 0$ C. $a + b + c < 0$ D. None of these |
| 5 | $(1+w)(1+w^2)(1+w^4)(1+w^8) \dots 50$ factors | A. 0 B. -1 C. 1 D. 2 |
| 6 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. 1 B. -1 C. 0 D. I |
| 7 | Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at $x = 0$ is | A. 10 B. 20 C. 12 D. 1 |
| 8 | The slope of the normal at $(5 \cos \theta, 5 \sin \theta)$ to the circle. $x^2 + y^2 = 25$ is: | A. $\tan \theta$ B. $\cos \theta / \sin \theta$ C. $-\cot \theta$ D. $-\tan \theta$ |
| 9 | Multiplicative inverse of "1" is | A. 0 B. -1 C. 1 D. $\{0, 1\}$ |
| 10 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | D. none of these |
| 11 | 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. $ay^2 + by + 4c = 0$ |
| 12 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | |
| 13 | The sum of the even coefficients in the expansion $(1 + x)^n$ is | A. 2^{n-1} B. 2^{n-2} C. 2^{n-1} D. 2^n |
| 14 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. (2×4) B. (2×7) C. (2×3) D. (7×2) |
| 15 | The domain and range of a trigonometric function can be allocate by their | A. graph B. Continuity C. Discontinuity D. Periods |
| 16 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. 8 B. 9 C. 10 D. 11 |
| 17 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. 2nd term |

18 If the exponent in the binomial expansion is 6, then the middle term is

- A. 2nd term
- B. 3rd term
- C. 4th term
- D. 5th term

19

- B. 1
- C. 2
- D. -2

20