

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | $(f \circ g)'(x) = f'(g(x))g'(x)$ is derivative by | A. Chain rule B. Reciprocal rule C. Power rule D. Product rule |
| 2 | In a triangle if $\alpha > 45^\circ, \beta > 30^\circ$ then γ cannot be | A. 90° B. 100° C. 10° D. 120° |
| 3 | Question Image | |
| 4 | If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$, then which expression defines the product of z_1 and z_2 ? | A. $36 + (-32)i$ B. $-36 + 32i$ C. $6 + (-11)i$ D. $0, +(-12)i$ |
| 5 | Question Image | D. none of these |
| 6 | Question Image | A. $\cos 2x + c$ B. $-\cos 2x + c$ C. $\tan 2x + c$ D. $\cot 2x + c$ |
| 7 | The equation of the chord of the circle $x^2 + y^2 - 4x = 0$ whose mid-point is $(1, 0)$ is | A. $y = 2$ B. $y = 1$ C. $x = 2$ D. $x = 1$ |
| 8 | The n th term of an A.P is $(3n+5)$ Its 75th term is | A. 26 B. 7 C. 21 D. Cannot be determined |
| 9 | Question Image | |
| 10 | $(x+a)(x+b)(x+c)(x+d) = k, k \neq 0$ is reducible to quadratic form only if | A. $a+b=c+d$ B. $a+c=b+d$ C. $a+d=b+c$ D. All are correct |
| 11 | The roots of the equation will be irrational if $b^2 - 4ac$ is | A. Positive and perfect square B. Positive but not a perfect square C. Negative D. Zero |
| 12 | Question Image | |
| 13 | Question Image | |
| 14 | Through how many radians does the minute hand of a clock turn in one hour | A. $(0, e)$ B. $(0, 1)$ C. $(-\infty, \infty)$ D. None |
| 15 | $F(x) = x^x$ decreases in the interval | A. $\sin^{-1} \frac{1}{2}$ B. $\tan^{-1} \frac{1}{2}$ C. $\cot^{-1} \frac{1}{2}$ D. $\cos^{-1} \frac{1}{2}$ |

16 If $\theta = 60^\circ$ then

C. $\cot \theta$
D. $\sec \theta$

17 Question Image

18 Question Image

19 The system of measurement in which the angle is measured in radians is called the

- A. circular system
- B. CGS system
- C. sexagesimal system
- D. none of these

20 A vector of magnitude zero is called

- A. Position vector
- B. Null vector
- C. Free vector
- D. None of these