

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The roots of $ax^2 + bx + c = 0$ are always unequal if	A. $b^2 - 4ac = 0$ B. $b^2 - 4ac \neq 0$ C. $b^2 - 4ac > 0$ D. $b^2 - 4ac \geq 0$
2	Question Image	
3	Question Image	C. 16 D. None of these
4	Question Image	A. $a \cot(ax + b) + c$ B. $-a \cot(ax + b) + c$
5	The integral of $3x^5 dx$ is:	A. $15 x^{⁴}$ B. $x^{⁶}/2$ C. $1/6 x^{⁵}$ D. $x^{⁵}/\ln 3$
6	Question Image	A. 7 B. 5 C. 6 D. None of these
7	$\sqrt[3]{8.6}$ is approximately equal to	A. 2.488 B. 2.48 C. 2.0488 D. 2.05
8	If α, 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. $ay^2 + by + 4c = 0$
9	The radius of the circle $(x - 1)^2 + (y + 3)^2 = 61$ is	A. 8 B. 4 C. 64 D. None of these
10	$\sqrt{2}$ is a number	A. Rational B. Irrational C. Even D. Odd
11	The multiplicative inverse of $1 - 2i$ is	
12	A line joining two distinct points on a parabola is called	A. Axis B. Directrix C. Chord D. Tangent
13	If d_1 is the distance between (0,0) and (1,2) and d_2 is the distance between (0,0) and (2,1) then	A. $d_{₁} = d_{₂}$ B. $d_{₁} < d_{₂}$ C. $d_{₁} > d_{₂}$ D. none of these
14	If the focus lies on the y-axis with coordinates $f(0, a)$ and directrix of the parabola is $y = -a$, the equation of parabola is:	A. $y^{²} = -4ax$ B. $x^{²} = 4ay$ C. $x^{²} = -4ay$ D. $y^{²} = 4ax$
15	In following question, a number series is given with one term missing. choose the correct alternative that will same pattern and fill in the blank spaces. 1, 4, 9, 16, 25, x	A. 35 B. 36 C. 48 D. 49
16	Question Image	
17	If the intersecting plane is parallel to a generator of the cone, but intersects its one nappe only, the curve obtained is	A. an ellipse B. a hyperbola C. a circle D. a parabola
18	Domain of $\tan x$ is _____	

19 If $z = (x,y)$, then $\bar{z} =$

A. $(-x,y)$
B. $(x,-y)$
C. $(-x, -y)$
D. None of these

20 The geometrical representation of a linear function is

A. Circle
B. Parabola
C. Straight line
D. None of these