Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If $f(x) = -x^3$ then $f(-2)$ is	A. -2 B. -4 C. -8 D. 8
2	If p, q, r and in A.P., a is G.M. between p and q and b is G.M. between q and r, then a^2, q^2, b^2 are in	A. A.P. B. G.P. C. H.P. D. None of these
3	Period of sin 3x is _____	
4	$f(x) = \log x + 3$ is a	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
5	For two vector a and b, a+b = _____	A. a b B. b+a C. b-a D. None
6	Question Image	A. a B. 2a C. 3a D. 4a
7	The period $\sin^2\theta$ is	A. π^2 B. π C. 2π D. $\pi/2$
8	The number of significant numbers which can be formed by using any number of the digits 0, 1, 2, 3, 4 but using each not more than once in each number is	A. 260 B. 356 C. 410 D. 96
9	Question Image	
10	If a parabola opens down, then its vertex is at the	A. Right of the parabola B. Left of parabola C. Lowest point on the parabola D. Highest point on the parabola
11	pth term of an H.P. is qr and qth term is pr then the rth term of the H.P. is	A. pqr B. 1 C. pq D. pqr^2
12	Question Image	
13	Question Image	A. 15 B. 15 i C. -15 i D. -15
14	Question Image	
15	If $b^2 - 4ac$ is positive then the roots of the equation are	A. Real B. Imaginary C. Positive D. Negative
16	If $f(\alpha) = b2$ and $g(c) = d$ where $c=b2$ then $(gof)(a)$ is	A. α B. c C. b D. d
17	If $f(\sqrt{x})=\sin x$, then $f'(x) =$ _____;	A. 2xcosx2 B. cosx2 C. $\cos\sqrt{x}$ D. None of these

18	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. $-\infty < x < \infty$
19	graph of sine function is bounded between lines	A. $y \pm 1 = 0$ B. $x \pm 1 = 0$ C. $x \pm y - 0$ D. None of these
20	The number of terms in the expansion of $(a + b)^9$ is	A. 10 B. 11 C. 9 D. 12