Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The line y =mx +1 is tangent to the parabola y2 =4x if	A. m=1 B. m=2 C. m=3 D. m=4
2	Question Image	
3	The first three terms in the expansion of $(1 + x)^{-1}$are	A. 1 + x + x² B. 1 - x - x² C. -1 -x + x² D. 1 - x + x²
4	The radius of the circle $2x^2 + 2y^2 - 4x + 12 y+11=0$ is:	A. √4.5 B. √11 C. √29 D. √15
5	Question Image	
6	The set {-1, 1} is	A. Group under the multiplication B. Group under addition C. Does not form a group D. Contains no identity element
7	An infinite sequence has no	A. nth term B. Last term C. Sum D. None of these
8	The period $\sin^2\theta$is	A. π² B. π C. 2π D. π/2
9	If (2, 3) is the mid point of (a, 3) and (5, b) then	A. a = 1 , b = -3 B. a = -1 , b = 3 C. a = 1 , b =3 D. a = -1 , b = -3
10	If x + y + 1 = 0 touches the parabola $y^2=\lambda x$, then$\lambda$is equal to	A. 2 B. 4 C. 6 D. 8
11	If $\sin\theta$and $\cos\theta$are the roots of the equation $ax^2- bx + c = 0$, then a, b, c satisfy the relation	A. b²- a²= 2ac B. A²- b²= 2ac C. A²+ b²= c² D. B²+ a²= 2ac
12	Number of terms in the expansion of $(a+x)^n$is	A. n - 1 B. n + 1 C. n + 2 D. n + 3
13	The polynomial x - a is a factor of the polynomial f(x) if and only if	A. f(a) is positive B. f(a) is negative C. f(a) = 0 D. None of these
14	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. pqr²
15	E-radius corresponding to < C is	
16	$(51)^4$is equal to	A. 7065201 B. 8065201

16	(51)! is equal to	C. 6765201 D. 6565201
17	The sum of all 2 digit number is	A. 4750 B. 3776 C. 4895 D. 4905
18	If y is an image of x under the function f, then we write	A. y = f(x) B. x = f(y) C. y = x D. none of these
19	Question Image	
20	The trigonometric function are continuous whenever	A. They are defined B. their limit exist C. Their period is given D. All are incorrect