Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	With usual notations b2 = a2 + c2 -2ac cos is called_____;	A. None of these B. Law of sines C. Law of consines D. Law of tangents
2	Question Image	D. none of these
3	A matrix in which the number of rows is not equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
4	Which of the following is factor of x11+a11, where n is an odd integer	A. x-a B. x+a C. 2x-a D. 2x+a
5	If the equation x2+2x-3=0 and x2+3x-k=0 have a common root then the non - zero value of k is	A. 1 B. 3 C. 2 D. 4
6	Question Image	
7	Question Image	
8	tan 294° =_____;	A. tan 24° B. -tan 24° C. cot 24° D. -cot 24°
9	1/2,1/3,1/4,1/5.....is	A. a geometric sec B. an arithmetric series C. finite sequence D. an infinite sequece
10	If y=sin(ax+b) then y4=_____:	A. sin4(ax+b) B. a4sin(ax+b) C. a4cos(ax+b) D. None of these
11	If n is any positive integer ,t hen 2+4+6+.....+2 n=	A. 2ⁿ-1 B. 2ⁿ+1 C. n²+1 D. n(n+1)
12	$(51)^4$is equal to	A. 7065201 B. 8065201 C. 6765201 D. 6565201
13	The equation of the sphere passing thro' (0, 0, 0), (a, 0, 0), (0, b, 0), (9, 0, c) is	A. x²+ y²+ z²+ 2 ax +2 by + 2cz = 0 B. x²+ y²+ z²- 2ax - 2 by - 2cz = 0 C. x²+ y²+ z²- ax - by - cz = 0 D. x²+ y²+ z²+ ax + by + cz = 0
14	∀x,y,z ∈ R and z 0,then	A. x > y ⇒ xz > yz B. x<y ⇒ xz < yz C. x < y ⇒ xz > yz D. None of these
15	In quadratic equation $y=ax^3+bx+c$, if b and c are both zero then the graph is	A. Symmetric w.r.t.y-axis B. Symmetric w.r.t.x-axis C. Straight Line D. Circle
16	The angle AOP which the ray from an observer's eye at O to an object at P at a lower level makes with horizontal ray OA through O is called the	A. Angle of depression B. Angle of elevation C. Acute angle D. Obtuse angle

17	Question Image	
18	The proposition S(k+1) is true when _____ is true $\forall K \in N$	A. S(n) B. S(k) C. S(1) D. S(k-1)
19	Question Image	C. x²+ 2x + c D. (x²+ 2x -1)⁴+ c
20	The law of sines can be used to solve oblique triangle when following information is given:	A. Two angles and a side B. Two sides and an angle opposite one of the given sides C. Two sides and the angle between two sided D. Option a and b