Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The exact value of $\cos^{-1}(-1) + \cos^{-1}(1) =$	A. π B. $-\pi$ C. $\pi/2$ D. $\pi/3$
2	$\cos 6\theta + \cos 2\theta = \underline{\hspace{1cm}}$;	A. $-2\sin 4\theta \sin 2\theta$ B. $2\cos 4\theta \cos 2\theta$ C. $2\sin 4\theta \cos 2\theta$ D. $2\cos 4\theta \sin 2\theta$
3	Question Image	A. (2×4) B. (2×7) C. (2×3) D. (7×2)
4	The set $\{1, 2, 3, 4, ...\}$ is called	A. Set of Natural numbers B. Set of whole numbers C. Set of rational number D. Set of irrational numbers
5	The point of concurrency of the right bisectors of the sides of a triangle is called	A. incentre B. circum center C. e-center D. centroid
6	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. $b^2 - 4ac \geq 0$
7	Question Image	
8	Question Image	D. None of these
9	$\underline{\hspace{2cm}}$ invented a symbolic way to write the statement "y is a function of x" as $y = f(x)$	A. Leibniz B. Newton C. Euler D. None of these
10	A and B be two square matrices and if their inverse exist the $(AB)^{-1} =$	A. $A^{-1}B^{-1}$ B. AB^{-1} C. $A^{-1}B$ D. $B^{-1}A^{-1}$
11	Question Image	A. 0 B. 1 C. 2 D. None of these
12	Every whole number is	A. A real number B. An irrational number C. A prime number D. A negative integer
13	Question Image	A. $x^3 - x^2 + x + c$ B. $6x - 2 + c$ C. $x^3 - 2x + c$
14	The condition for $ax^2 + bx\, c$ to be expressed as the product of linear polynomials is	A. $b^4 - 4ac = 0$ B. $b^4 - 4ac \geq 0$ C. $b^4 - 4ac < 0$ D. $b^4 = 4ac$
15	The first three terms in the expansion of $(1 + x)^3$ are	A. $1 + 3x + 6x^2$ B. $1 - 3x + 6x^2\backslash$ C. $-3 - 3x - 6x^2$ D. $1 - 3x - 6x^2$
16	2π is the period of	A. $\sin\square$ B. $\tan\square$ C. $\cot\square$ D. all circular function

17	A bag contains 5 white, 7 red and 5 black balls. If four balls are drawn one by one with replacement, the probability that none is white is	A. $(11/16)^2$ B. $(5/16)^2$ C. $(11/16)^4$ D. $(5/16)^4$
18	The maximum value of Z = 3x+ 4y subjected to the constrains x+ y≤ 40,x+ 2y≤ 60, x≥ 0 and y≥ 0 is	A. 120 B. 100 C. 140 D. 160
19	Question Image	A. 0 B. -2 C. 1 D. 4
20	The element range of sequence are called	A. Series B. progression C. Members D. Terms