Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	For each even natural number n (n^2-1) is divisible by	A. 6 B. 3 C. 4 D. 8
2	Question Image	
3	The conic is a parabola, when:	A. ℮ > 1 B. ℮ < 1 C. ℮ = 1 D. ℮ = 0
4	If $f(x) = -x^2$ then f(-2) is	A. -2 B. 2 C. -4 D. 4
5	The value of x, and y, when $(x + iy)^2 = 5 + 4i$	A. X = 2, y = 1 B. X = -2, y = 1 C. X = 2, y = -1 D. X = 2, y = 2
6	The square matrix A is skew Hermitian when (A)'=	A. A B. A' C. -A D. A
7	$(A \cup B) \cup C$= ----------	A. $A \cap B(B \cup C)$ B. $A \cup (B \cup C)$ C. $A \cup (B \cap C)$ D. None of these
8	The differential equation of all st. lines which are at a constant distance to form the origin is	
9	A vector with magnitude one is called	A. constant vector B. unit vector C. zero vector D. null vector
10	$\forall a,b, c \varepsilon R, a + c = b + c => a = b$	A. Reflexive property B. Symmetric property C. Cancellations property w.r.t. addition D. Transitive property
11	The expansion of $(1 - 3x)^{-1}$ is valid if	A. | x | < 1 B. | x | < 3 C. | x | < 1/3 D. None of these
12	The expansion $(1 + x)^{-3}$ holds when	A. |x| > 1 B. |x| < 1 C. x < 1 D. x > 1
13	w^{73}= _____	A. 0 B. 1 C. w D. w²
14	If the sum of co-efficient in the expansion of $(a+b)^n$ is 4096, then the greatest co-efficient in the expansion is	A. 1594 B. 792 C. 924 D. 2924
15	The period of the function $f(x) = \sin^4 x + \cos^4 x$ is	A. <i>π</i> B. <span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-

15	The period of the function f(x) = $\sin^2 x + \cos^2 x$ is	align: center; background-color: rgb(255, 255, 224);">π /2 C. 2π D. None of these
16	The solution set of the equation $\tan^{-1}x - \cot^{-1}x = \cos^{-1}(2 - x)$ is	A. [0, 1] B. [-1, 1] C. [1, 3] D. None of these
17	The line 3x - 4y = 0	A. Is a tangent to the circle x²+ y²= 25 B. Is a normal to the circle x²+ y²=25 C. Does not meet the circle x²+ y²= 25 D. Does not pass thro' the origin
18	Riaz, Saba. Maria, Shehzad are to give speeches in a class. The teacher can arrange the order of their presentation in	A. 4 ways B. 12 ways C. 256 ways D. 24 ways
19	Question Image	B. ln(x²- x + 1) + c D. ln(2x - 1) + c
20	If $f(x) = x^2 - x$ then f(0) is	A. 0 B. 1 C. 2 D. 3