Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	An equation in which at least one term contains dy/dx, d^2 y /dx^2etc, is called.	A. Differential equation B. Initial condition C. General solution D. Singular equation
2	The square matrix A is skew Hermitian when (A)'=	A. A B. A' C. -A D. A
3	Cos-1 (-x) =	A. -x B. 1/x C. tan-1 x D. π-cos-1 x
4	If the angle between two vectors u and v is 0 orπ, then the vectors u and v are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
5	Which is the proper rational function	
6	Question Image	
7	Question Image	
8	Question Image	
9	Question Image	
10	Question Image	A. - cot 4x + c B. cot 4x + c C. tan 4x + c D. - tan 4x + c
11	A card is drawn from a pack of cards numbered 1 to 52, the probability that the number on the card is a perfect square is	A. 1/13 B. 2/13 C. 7/52 D. None of these
12	Question Image	
13	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
14	Question Image	A. I quadrant B. II quadrant C. III quadrant D. IV quadrant
15	Question Image	A. A B. B C. A' D. None of these
16	In one hour, the hour hand of a clock turns through	
17	Question Image	A. -2x³ B. 2x⁻³ C. -2x⁻³ D. 2x³
18	A square matrix A = [aij] is lower triangular matrix when:	A. aij = 0 for all i < j B. bij = 0 C. cij = 0 D. dij =0
19	The set of all positive even integers is	A. Not a group B. A group w.r.t. subtraction C. A group w.r.t. division D. A group w.r.t. multiplication

20	A Geometric Series is divergent only if	A. |r|>1 B. |r|≥1 C. |r|=1 D. None of these