Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	An equation containing at least one derivative of a depends variable with respect to independent variable is a (an)	A. Implicit equation B. Differential equation C. General equation D. None of these
2	The set of all antiderivaties of f(= ∫f(x)dx) is the	A. Definite integral B. Indefinite integral C. Integral D. Area
3	A stationary point x is a relative exterma of y= f(x) is	A. f″ (x) > 0 B. f″ (x) < 0 C. f″ (x) ≠ 0 D. f″(x) = 0
4	If (0, 0) and (-1, 0) are end points of a diameter, then the equation of the circle is	
5	If origin is the mid point of (a, -3) and (-5, b) then	A. a = -5 , b = -3 B. a = 5 , b =3 C. a = -5 , b = 3 D. a = 5 , b = -3
6	In school there are 150 students Out of these 80 students enrolled for mathematics class 50 enrolled for English class and 60 enrolled for Physics class The student enrolled for English cannot attend any other class but the students of mathematics and Physics can take two courses at a time Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20
7	If a, b, c, d, e, f are in A.P.,then e-c is equal to	A. 2(c - a) B. 2(f - d) C. 2(d - c) D. d - c
8	The distance of the point (-2 , 3) from y-axis is	A. 2 B. -2 C. 3 D. 1
9	The equation x2+ y2- 8x+ 6y+ 25= 0 represents	A. A circle B. A pair of straight lines C. A point D. None of these
10	∫sin(ax+b) dx is equal to:	A. 1/2a cos (ax + b) B. -1/a cos (ax +b) C. 1/a cos (ax +b) D. 1/a ln (ax + b)
11	Domain of 2 cos x is _____	A. [-2, 2] B. R C. Negative real numbers D. None of these
12	If order of A is m x n, then order of $A^t$is	A. m x m B. n x n C. m x n D. n x m
13	The area under the curve y = $1/x^2$ between x = 1 and x =4 is:	A. -25 B. 0.75 C. -0.35 D. -10
14	The equation of the circle with centre (h, k) and radius r is	A. (x+ h)²+ (y+ k) ²= r² B. (x+ h)²+ (y - k) ²= r² C. (x - h)²+ (y+ k) ²= r² D. (x - h)²+ (y - k) ²= r²
15	Question Image	D. none of these

16	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
17	The number of tangents to the circle x2+ y2 -8x -6y +9 =0 which pass through the point (3,-2) is	A. 2 B. 1 C. 0 D. None of these
18	Question Image	A. 3/4 B. -3/4 C. 4/3 D. -4/3
19	Question Image	A. direction ratios B. direction cosines C. direction angles D. none of these
20	Any whole number can be written as a product of factors which are	A. Odd numbers B. Prime number C. Rational number D. Even number