ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	If (2, 3) is the mid point of (a, 3) and (5, b) then	A. a = 1 , b = -3 B. a = -1 , b = 3 C. a = 1 , b =3 D. a = -1 , b = -3
2	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
3	The middle term in the expansion of $(a+x)^{12}$is	A. 7th B. 8th C. 9th D. 6th
4	The sum of the coefficient in the expansion of $(a + x)^5$is	A. 32 B. 16 C. 8 D. 5
5	The sum of the odd coefficients in the expansion of $(a + x)^4$is	A. 14 B. 12 C. 8 D. 4
6	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
7	The sum of even coefficient in the binomial expansion is	A. 2ⁿ⁺¹ B. 2ⁿ C. 2ⁿ⁻¹ D. 2n
8	If n is odd then the middle terms in the expansion of $(a + x)^n$are	
9	Question Image	A. a B. 2a C. 3a D. 4a
10	Question Image	A. 1 B. 2 C. -1 D. 0
11	In the expansion of $(a + x)^n$the sum of exponents of a and x in each term of the expansion is	A. n + 1 B. n - 1 C. n D. 2n
12	The mid point of the line segment joining the points (a,b) and (b,a) is	
13	The number of terms in the expansion of $(a + b)^9$is	A. 10 B. 11 C. 9 D. 12
14	If the exponent in the binomial expansion is 6, then the middle term is	A. 2nd B. 3rd C. 4th D. 5th
15	The mid point of the line segment joining the points (3,-1) and (-3,1) is	A. (3,-1) B. (0,0) C. (2,2) D. (4,4)
16	The first three terms in the expansion of $(1 - x)^{-3}$are	A. 1 + 3x + 6x² B. 1 - 3x + 6x² C. -3 - 3x - 6x² D. 1 - 3x - 6x²

17	The mid point of the line segment joining the points (4,0) and (0,4) is	A. (4,4) B. (2,2) C. (-4,-4) D. (-2,-2)
18	The first three terms in the expansion of $(1 - x)^{-2}$are	A. 1 - 2x + 3x² B. 1 - 2x - 3x² C. 1 + 2x + 3x² D. -2 - 2x +3x²
19	The mid point of the line segment joining the points A(-8,3) and B(2,-1) is	A. (-3,1) B. (-6,2) C. (5,2) D. (-5,2)
20	The mid point of the line segment joining the points A(3,1) and B(-2,-4) is	A. (1, -3)
21	The first three terms in the expansion of $(1 - x)^{-1}$are	A. 1 + x + x² B. 1 - x - x² C. -1 -x +x² D. 1 - x + x²
22	The first three terms in the expansion of $(1 + x)^{3}$are	A. 1 + 3x +6x² B. 1- 3x + 6x²\ C. -3 -3x -6x² D. 1- 3x -6x²
23	The first three terms in the expansion of $(1 + x)^{-2}$are _____	A. 1 - 2x + 3x² B. 1 - 2x - 3x² C. 1 + 2x + 3x² D. -2 -2x + 3x²
24	The distance between the points A(-8,3) and B(2,-1) is	B. 116 D. none of these
25	The first three terms in the expansion of $(1 + x)^{-1}$are	A. 1 + x + x² B. 1 - x - x² C. -1 -x + x² D. 1 - x + x²
26	The distance between the points A(3,1) and B(-2,-4) is	A. 5 C. 25 D. 10
27	The sum of coefficients in the binomial expansion equals to	A. 2 B. 2ⁿ⁺¹ C. 2ⁿ⁻¹ D. 2ⁿ
28	Question Image	A. Even B. Odd C. Prime D. None of these
29	The mid point of the line joining the points $P(x_1, y_1)$ and $Q(x_2, y_2)$ is	
30	Question Image	A. 2 B. 7 C. 8 D. 12