ECAT Mathematics Chapter 10 Mathematical Induction

Sr	Questions	Answers Choice
1	Question Image	A. Imaginary B. Rational C. Irrational D. Real numbers
2	a + x is _____	A. A trinomial B. A binomial C. A monomial D. None of these
3	The middle term in the expansion of $(a+x)^{12}$is	A. 7th B. 8th C. 9th D. 6th
4	The expansion of $(1 + 2x)^{-2}$is valed if	A. | x | < 1/2 B. | x | < 1 C. | x | < 2 D. | x | < 3
5	The coefficient of the third term of $(8a-b)^{1/3}$, after simplification is	A. -228 B. 1/288 C. 1/220 D. -1/177
6	The sum of the coefficient in the expansion of $(a + x)^5$is	A. 32 B. 16 C. 8 D. 5
7	The coefficient of xn in the expansion of (1-2x)-1 is	A. (-1)n2n B. 2n C. (-1)(n+1)xr D. (n+1)2n
8	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
9	The number of terms in the expansion of $(a + x)^{12}$is	A. 13 B. 12 C. 11 D. 10
10	If the 4th term in the expansion of $(px + x^{-1})^m$is 2.5 for all x $\in R$, *then*	
11	The fifth term of (a+2x3)17 is	A. 4013 x3a13 B. 2208a13 x12 C. 223x7a18 D. 38080a13 x12
12	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
13	The 7th term of $(3^8 + 6^4x)^{11/4}$ is	A. -19217/3 x⁶ B. 189/2 6⁴x C. 2227/12 x³ D. -19712/3 x⁶
14	Question Image	A. ¹⁰C₆ B. ¹⁰C₅ C. ¹⁰C₄ D. None
15	$(x^3-1/2x)^6$ is	A. 15/16 x² B. 2/13 x² C. 17/7 x² D. 16/15 x²
16	If the sum of even coefficients in the expansion of (1+x)n is 128 then	A. n=7 B. n=9

		C. n=8 D. None
17	The positive integer just greater than $(1+0.0001)^{10000}$ is	A. 4 B. 5 C. 2 D. 3
18	The sum of the cubes of three consecutive natural number is divisible by	A. 9 B. 6 C. 5 D. 10
19	The term involving x^4 in the expansion of $(3 - 2x)^7$ is	A. 120 B. 1512 C. 1250 D. 15120
20	The greatest term in the expansion of $(3+2x)^9$, when x=1 is	A. 4th B. 4th and 5th C. 5th D. 6th