ECAT Mathematics Chapter 10 Mathematical Inductions

Sr	Questions	Answers Choice
1	If nis positive integers, then 2^n>2n+1, only when	A. n≤ 3 B. n≥ 3 C. n≤ 2 D. n≤ 1
2	The number of terms in the expansion of $(a + x)^{12}$is	A. 13 B. 12 C. 11 D. 10
3	n^2 - 1 divisible by 8 when n is	A. an odd integer B. an even integer C. Irrational D. Prime Number
4	n! > 2^n-1 is true when	A. n≤ 3 B. n≤ 6 C. n≥ 4 D. n≤ 6
5	The positive integer just greater than $(1+0.0001)^{10000}$is	A. 4 B. 5 C. 2 D. 3
6	The number of terms in the expansion of $(a + b)^9$is	A. 10 B. 11 C. 9 D. 12
7	If in the expansion of $(1+x)^n$, co-efficients of 2nd, 3rd and 4th terms are in A.P., then x=	A. 4 B. 5 C. 6 D. 7
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 seventh term of (x3+1/x)8is	A. 71 B. -22 C. 27 D. 28
10	If the exponent in the binomial expansion is 6, then the middle term is	A. 2nd B. 3rd C. 4th D. 5th
11	If n is any positive integer then 4^n>3^n+ 4 is true for all	
12	The sum even binomial coefficient of (3+2x)5 is _____term	A. 16 B. 30 C. 8 D. 32
13	Question Image	
14	For n€ N,$2^{n>2}$ > n is to only when	A. n<2 B. n≤ 4 C. n≥ 4
15	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
16	The expansion of $(1 + 2x)^{-2}$is valed if	A. | x | < 1/2 B. | x | < 1 C. | x | < 2 D. | x | < 3
17	If the 4th term in the expansion of $(px + x^{-1})^m$is 2.5 for all x $\in R$, then	

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 coefficient of x^{10}in the expansion $(x^3+3/x^2)^{10}$is	A. 1700 B. 17023 C. 17027 D. 17010
20	1st four terms of the expansion $(1-x)^{-2}$are	A. 1 + 2x + 3x²+ 4x³ B. 3x²+ 2x + 1 C. 1 + 3x + 4x²+ 5x³ D. None of these