ECAT Mathematics Chapter 10 Mathematical Induction

Sr	Questions	Answers Choice
1	The third term in the expansion of (1+2x) is	A. -2x2 B. -4x2 C. 2x2 D. 4x2
2	In the expansion of (x+y)n the coefficient of 5th and 12th terms are equal then n=	A. 12 B. n=14 C. 17 D. n=15
3	The sum of the cubes of three consecutive natural number is divisible by	A. 9 B. 6 C. 5 D. 10
4	$(0.90)^{1/2}$is equal to	A. 0.99 B. 0.90 C. 0.80 D. 0.88
5	If n is any positive integer then $n^2 > n + 3$ for	
6	The middle term of $(x-y)^8$is	A. 25 x⁴y⁴ B. 70 x⁴y⁴ C. 120 x⁴y⁴ D. 97x⁴y⁴
7	Digit in the unit place of the number $183! + 3^{183}$	A. 7 B. 6 C. 3 D. 0
8	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
9	The no of term is the expansion of (a+x)n-1 is	A. n+1 B. n-1 C. n D. n-2
10	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
11	a + x is _____	A. A trinomial B. A binomial C. A monomial D. None of these
12	If n is any positive integer then 3 + 6 + 9 + ...+ 3n = _____	
13	The fifteenth term of $(3-a)^{15}$ is	A. -17a¹² B. -945a¹³ C. -941a¹³ D. -515a¹²
14	Question Image	A. ab=-1 B. ab = 1 C. ab = 2 D. None
15	(x3-1/x)12	A. 295 B. 495 C. 395 D. 722
16	Question Image	A. ⁿC_r B. ⁿ⁺¹C_{r+1} C. ⁿC_{r+1} D. None

17	${}^{n}C_{2}$= exists when n is _____	
18	The expansion $(1 + x)^{-3}$holds when	A. |x| > 1 B. |x| < 1 C. x < 1 D. x > 1
19	If the exponent in the binomial expansion is 6, then the middle term is	A. 2nd term B. 3rd term C. 4th term D. 5th term
20	If n is not natural number, then the expansion $(1 + x)^{n}$is valid for	