ECAT Mathematics Chapter 10 Mathematical Induction

Sr	Questions	Answers Choice
1	The sum of the cubes of three consecutive natural number is divisible by	A. 9 B. 6 C. 5 D. 10
2	$(0.90)^{1/2}$ is equal to	A. 0.99 B. 0.90 C. 0.80 D. 0.88
3	The general term in the expansion of $(a+x)n$ is	A. (r-1)th term B. (r+1)th term C. rth term D. none
4	The middle term of the expansion $(1 + 2x)^6$ is _____	A. 1st term B. 4th term C. 2nd term D. 5th term
5	Question Image	A. Even B. Odd C. Prime D. None of these
6	$(0.90)^{1/2}$ is equal to	A. 0.99 B. 0.90 C. 0.80 D. 0.88
7	The expansion of $(1 + 2x)^{-2}$ is valed if	A. | x | < 1/2 B. | x | < 1 C. | x | < 2 D. | x | < 3
8	The proposition S(n) for any $n \in$ N is only true if $k \in$ N and	A. S(k +1) is true B. S(1) is true and S(k+1) is true whenever S (k) is true C. S(k+1) is true whenever S (k) is true D. S(k) is true
9	The sum even binomial coefficient of (3+2x)5 is _____term	A. 16 B. 30 C. 8 D. 32
10	The positive integer just greater than $(1+0.0001)^{10000}$ is	A. 4 B. 5 C. 2 D. 3
11	If n is not natural number, then the expansion $(1 + x)^n$ is valid for	
12	If the 4th term in the expansion of $(px + x^{-1})^m$ is 2.5 for all $x \in R, then$	
13	The middle term in the expansion of $(a +x)^{12}$ is	A. 7th B. 8th C. 9th D. 6th
14	The greatest integer which divides the number 101^{100}- 1 is	A. 100 B. 1000 C. 10000 D. 100000
15	The exponent of x in 10th term in the expansion of $(a+x)n$	A. 10 B. 12 C. 11 D. 9
16	Question Image	A. Imaginary B. Rational C. Irrational

17	There is no integer n for which 3n is	A. Even B. Prime C. Odd D. Real
18	(2.02)4 s equal to	A. 16 B. 16.6496 C. 17 D. 18
19	If $(1+x-2x^3)^6 = 1+a_1x + a_2x^2 + a_3x^3 + $ ..... the the value of $a_2 + a_4 + a_6 + ...+a_{12}$ will be	A. 32 B. 31 C. 64 D. 1024
20	The term independent of x is the expansion $(x^3+1/x)^{12}$	A. 295 B. 495 C. 395 D. 722