ECAT Computer Science Entry Test

Sr	Questions	Answers Choice
1	Question Image	A. $6x - 2 + c$ B. $x^3 - x^2 + x + c$ C. $6x - x^2 + c$ D. $6x^3 - x^2 + c$
2	If a_1 and r are the first term and the common ratio respectively then (n + 1)th term of the G.P. is	A. 0 B. $a_1 r^{n-1}$ C. $a_1 r^{n+1}$ D. $a_1 r^n$
3	The common ration of a geometric sequence cannot be	A. 0 B. 1 C. 2 D. 3
4	Question Image	B. $6x + 2 + c$ C. $6x + x^2 + c$ D. $6x^3 + x^2 + x$
5	No term of a geometric sequence can be	A. 0 B. 1 C. 2 D. 3
6	Sum of n terms of a geometric series if $|r| < 1$ is	
7	Question Image	A. $2x + 3$ B. $x^2 + 3 + c$
8	Question Image	
9	Question Image	D. none of these
10	Question Image	
11	Find the geometric mean between 4 and 16	
12	The numbers of G_1, G_2, G_3...... G_n are called n geometric means between a and b is a, G_1, G_2, G_3, ... G_n, b are in	A. H.P. B. A.P. C. G.P. D. None of these
13	G is geometric mean between a and b if a, G, b is	A. A.P. B. G.P. C. H.P. D. None of these
14	Question Image	A. 2^x B. $2^x \ln x$ C. $2^x \ln 2$
15	Geometric mean between a and b is	
16	Question Image	A. a^x B. $a^x \ln a$
17	3, 6, 12,.... is	A. A.P B. G.P. C. H.P. D. None of these
18	The nth term of a G.P. is	A. $a_1 r^n$ B. $a_1 r^{n+1}$ C. $a_1 r^{n-1}$ D. $a_1 r^{-n}$
19	The sum of n terms of a series is denoted by	A. d B. n C. S_n D. a_n

20	Question Image	
21	The series obtained by adding the terms of an arithmetic sequence is called the	A. Infinite series B. Harmonic series C. Geometric series D. Arithmetic series
22	Question Image	
23	A number A is called the arithmetic mean between a and b if a, A, b is _____	A. Arithmetic sequence B. Geometric sequence C. Harmonic sequence D. Arithmetic sequence
24	Derivative of x^3 w.r.t x is	A. 0 B. 1 C. $3x^2$ D. x^3
25	Derivative of a w.r.t x is	A. 0 B. 1 C. x D. x
26	Write the first four terms of the sequence if $a_n = (-1)^n n^2$	A. -1, 4, -9, 16 B. 1, -4, 9, 16 C. 1, 4, 9, 16 D. None of these
27	Derivative of sin x w.r.t. sin x is	A. 0 B. 1 C. sin x D. cos x
28	Question Image	
29	Write the first four terms of the arithmetic sequence 5, 2, -1, ... is	A. 3 B. -4 C. 7 D. 1
30	Arithmetic mean between x - 3 and x + 5 is	A. x + 1 B. x + 2 C. x + 3 D. x + 4