

Mathematics ECAT Pre Engineering Online Test

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

20	The sum of n terms of a series is denoted by	B. n C. S_n D. a_n
21	Question Image	
22	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
23	Question Image	
24	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
25	Derivative of x^3 w.r.t x is	A. 0 B. 1 C. $3x^2$ D. x^3
26	Derivative of a w.r.t x is	A. 0 B. 1 C. x D. x
27	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
28	Derivative of $\sin x$ w.r.t. $\sin x$ is	A. 0 B. 1 C. $\sin x$ D. $\cos x$
29	Question Image	
30	Write the first four terms of the arithmetic sequence 5, 2, -1, ... is	A. 3 B. -4 C. 7 D. 1