

ECAT Mathematics Chapter 8 Sequences and Series Online Test

Sr	Questions	Answers Choice
1	Find the sum of the infinite geometric series $2 + 1 + 0.5 + \dots$	A. 3.5 B. 3 C. 4 D. None of these
2	Question Image	A. 0 B. 1 C. 2 D. 3
3	The series obtained by adding the terms of a geometric sequence is called	A. Infinite series B. Arithmetic series C. Geometric series D. Harmonic series
4	The sum of an infinite geometric series exist if	A. $ r < 1$ B. $ r > 1$ C. $r = 1$ D. $r = -1$
5	If a_1 , r are first term and the common ratio respectively then the sum of an infinite geometric series is	
6	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. $a_1 r^n$
7	The common ration of a geometric sequence cannot be	A. 0 B. 1 C. 2 D. 3
8	No term of a geometric sequence can be	A. 0 B. 1 C. 2 D. 3
9	Sum of n terms of a geometric series if $ r < 1$ is	
10	Question Image	
11	Find the geometric mean between 4 and 16	
12	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
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	Geometric mean between a and b is	
15	3, 6, 12, ... is	A. A.P. B. G.P. C. H.P. D. None of these
16	The n th term of a G.P. is	A. $a_1 r^{n-1}$ B. $a_1 r^{n+1}$ C. $a_1 r^{n-1}$ D. $a_1 r^n$
17	The sum of n terms of a series is denoted by	A. d B. n C. S_n D. a_n
18	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

D. Arithmetic series

19	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
20	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
21	Write the first four terms of the arithmetic sequence 5, 2, -1, ... is	A. 3 B. -4 C. 7 D. 1
22	Arithmetic mean between $x - 3$ and $x + 5$ is	A. $x + 1$ B. $x + 2$ C. $x + 3$ D. $x + 4$
23	Question Image	
24	Sum of first n terms of an arithmetic series is	
25	The n numbers $A_1, A_2, A_3, \dots, A_n$ are called an arithmetic means between a and b if $a, A_1, A_2, A_3, \dots, A_n, b$ is _____	A. An arithmetic series B. An arithmetic sequence C. A geometric sequence D. A harmonic sequence
26	Arithmetic mean between a and b is	
27	-2, 1, 4, 7, is _____	A. Harmonic sequence B. Arithmetic sequence C. Geometric sequence D. Arithmetic series
28	The difference of two consecutive terms of an A.P. is called _____	A. General term B. Common ratio C. Common difference D. None of these
29	The general term of the A.P. is	A. $a + (n - 1) d$ B. $n + (a - 1) d$ C. $d + (n - 1) a$ D. None of these
30	The general term of a sequence is denoted by	A. a_n B. a_n C. n D. s_n