

ECAT Mathematics Chapter 8 Sequences and Series

| Sr | Questions | Answers Choice |
|----|---|---|
| 1 | In an A.P, $a + (n-1)d$ is | A. 1st term B. General term C. Last term D. None of these |
| 2 | The sum of n terms of a series is denoted by | A. d B. n C. S_n D. a_n |
| 3 | The n th term of a G.P. is | A. $a r^{n-1}$ B. $a r^{n+1}$ C. $a r^{n-1}$ D. $a r^{-n}$ |
| 4 | 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 |
| 5 | The common ratio of a geometric sequence cannot be | A. 0 B. 1 C. 2 D. 3 |
| 6 | An infinite arithmetic series is always | A. Convergent B. Oscillatory C. Divergent D. None of these |
| 7 | $1, \frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{9}, \dots$ is a | A. geometric sequence B. finite sequence C. infinite sequence D. arithmetic series |
| 8 | The 6th term of the sequence 7, 9, 12, 16, ... is | A. 27 B. 32 C. 20 D. 19 |
| 9 | Question Image | A. $\frac{15}{23}$ B. $\frac{7}{15}$ C. $\frac{7}{8}$ D. $\frac{15}{7}$ |
| 10 | Which one represents a sequence | A. a_n B. S_n C. $a(n)$ D. $\{a_n\}$ |
| 11 | Let S_n denote the sum of the first n terms of an A.P. If $S_{2n} = 3 S_n$, then S_n is equal to | A. 4 B. 6 C. 8 D. 10 |
| 12 | A sequence of numbers whose reciprocals form an arithmetic sequence is called | A. Geometric sequence B. Arithmetic series C. Harmonic sequence D. Harmonic series |
| 13 | Arithmetic mean between $x - 3$ and $x + 5$ is | A. $x + 1$ B. $x + 2$ C. $x + 3$ D. $x + 4$ |
| 14 | If the p th, q th, and r th terms of an A.P. are in G.P., then the common ratio of the G.P. is | |
| 15 | An infinite sequence has no | A. nth term B. Last term C. Sum D. None of these |
| 16 | Question Image | |
| 17 | Question Image | |

18 The n numbers $A_1, A_2, A_3, \dots, A_n$ are called arithmetic means between a and b if $a, A_1, A_2, A_3, \dots, A_n, b$ is _____

19 If a_1, r are first term and the common ratio respectively then the sum of an infinite geometric series is

20 Which term of the A.P $5, 8, 11, 14, \dots$ is 320

A. An arithmetic series
B. An arithmetic sequence
C. A geometric sequence
D. A harmonic sequence

A. 104th
B. 106th
C. 105th
D. 64th