ECAT Mathematics Chapter 8 Sequences and Series Online Test

Sr	Questions	Answers Choice
1	The number of divisors of 1029, 1547 and 122 are in	A. A.P. B. G.P. C. H.P. D. None of these
2	Let the sequence 1, 2, 2, 4, 4, 4, 4, 8, 8, 8, 8, 8, 8, 8, 8, ... where n consecutive terms have the value n, then 1025th term is	A. 2⁹ B. 2¹⁰ C. 2¹¹ D. 2⁸
3	An A.P., a G.P. and a H.P. have the same first and last terms and the same odd numbers of terms, the middle terms of the three series are in	A. A.P. B. G.P. C. H.P. D. None of these
4	Question Image	
5	Question Image	A. 1/2 B. 2 C. 1/4 D. 4
6	The sum of the squares of three distinct real numbers, which are in G.P., is S^2. if their sum isαS then	
7	Question Image	
8	The third term of a G.P. is the square of first term. If the second term is 8, then the 6th term is	A. 120 B. 124 C. 128 D. 132
9	Three consecutive terms of a progression are 30, 24, 20. The next terms of the progression is	
10	If b_1, b_2, b_3, ... are in G.P. with first term unity and common ratio r, then the minimum value of b_1- b_3+ $b_5$is equal to	A. 3/4 B. 1/4 C. 1 D. None of these
11	The 10th common term between the series 3+7+11+..... and 1 + 6 +11 + ... is	A. 191 B. 193 C. 211 D. None of these
12	Let a_1, a_2, a_3, $a_4$and $a_5$be such that a_1, a_2, and $a_3$are in A.P., a_2, $a_3$and $a_4$are in G.P and a_3, $a_4$and $a_5$are in H.P. Then, a_1, $a_3$and $a_5$are in	A. G.P. B. A.P. C. H.P. D. None of these
13	If three unequal numbers p, q, r are in H.P. and their squares are in A.P., then the ration p : q : r is	
14	The consecutive terms of a progressions are 30, 24, 20. The next term of the progression is	
15	Every term of a G.P. is positive and also every term is the sum of two preceding terms. Then the common ratio of the G.P. is	
16	Question Image	A. 2²- n - 1 B. 1 - 2⁻ⁿ C. n + 2⁻ⁿ-1 D. 2ⁿ- 1
17	If a, b, c are in AP., a, b, c are in G.P. then A, m^2b, c are in	A. A.P. B. G.P. C. H.P. D. None of these
18	If a_1= a_2= 2, a_n= a_{n-1}- 1 (n > 2), then $a_5$is	A. 1 B. 0 C. -1 D. -2

19	pth term of an H.P. is qr and qth term is pr then the rth term of the H.P. is	A. pqr B. 1 C. pq D. pqr²
20	If the pth, qth, and rth terms of an A.P. are in G.P:., then the common ratio of the G.P. is	
21	Question Image	A. 1 B. 2 C. 3/2 D. 5/2
22	Question Image	
23	If P, Q, R be the A.M., G.M., H.M. respectively between any two rational numbers a and b, then P - Q is	
24	99th term of the series 2 + 7 + 14 + 23 + 34 + ... is	A. 9998 B. 9999 C. 10000 D. None of these
25	Question Image	A. A.P. B. G.P. C. H.P. D. None of these
26	Question Image	A. 12 B. 13 C. 14 D. 15
27	Question Image	A. 15/23 B. 7/15 C. 7/8 D. 15/7
28	If x, y, z are the pth, qth, rth terms of an A.P. and also of G.P., then x^{y-z}. y^{z-x}. z^{x-y}eqals	A. xyz B. 0 C. 1 D. None of these
29	Let $S_n$denote the sum of the first n terms of an A.P. If S_{2n}= 3 S_n: $S_n$is equal to	A. 4 B. 6 C. 8 D. 10
30	If p, q, r and in A.P., a is G.M. between p and q and b is G.M. between q and r, then a^2, q^2, $b^2$are in	A. A.P. B. G.P. C. H.P. D. None of these