	BCM SCHOOL BASANT AVENUE DUGRI ROAD LDH CLASS XISC (SEQUENCES AND SERIES)
1	A G.P consists of an even number of terms. If the sum of all the terms is 5 times the sum of terms occupying odd places, then find its common ratio. (A)4 (B)5 (C)6 (D)3
2	If 9 times the 9th term of an A.P. is equal to 13 times the 13th term, then the 22nd term of the A.P. is (A)0 (B)198 (C)15 (D)22
3	Assertion: The sum of first *n* terms of an A.P. whose first term is *A*, the second term is *B* and the last term is *L*, is equal to $\frac{(\boldsymbol{B+L-2A})(\boldsymbol{A+L})}{\boldsymbol{2(B-A)}}$ Reason: If the sum of *p* terms of an A.P. is equal to the sum of its *q* terms, then the sum of its (*p*+*q*) terms is *p*+*q* (A) Both A and R are true and R is the correct explanation of A (B) Both A and R are true, R is not correct explanation of A (C) A is true but R is false. (D) A is false but R is true.
4	If a, b, c, d are in G.P., prove that $(a^n + b^n)$, $(b^n + c^n)$, $(c^n + d^n)$ are in G.P.
5	The ratio of the A.M. and G.M. of two positive numbers a and b is m:n Show that $a: b = (m + \sqrt{m^2 - n^2}) : = (m - \sqrt{m^2 - n^2})$
6	If a and b are the roots $x^2 - 3x + p = 0$ and c, d are roots of $x^2 - 12x + q = 0$ where a, b, c, d form a G.P. Prove that (q + p) :(q - p) = 17:15.
7	Shamshad Ali buys a scooter for ₹ 22000. He pays ₹ 4000 cash and agrees to pay the balance in annual instalment of ₹ 1000 plus 10% interest on the unpaid amount. (i)what is the interest for first month? (ii)what is the amount for the first instalment? (iii)How much will the scooter cost him