61. If $\log_3 N = 4 + \beta_1$

$\log_5 N = 2 + \beta_2$ and $\beta_1, \beta_2 \in [0, 1)$

Number of Integral values of N :

(1) 44   (2) 45   (3) 46   (4) 47

62. The number of triplet (a,b,c) for which $a(2\cos 2x - 1) + b\sin 2x + c = 0$ is satisfied by all real (where $a, b, c \in N$)

(1) 0   (2) 1   (3) 2   (4) Infinite

66. If $\sin A = 3\sin(A+2B)$, then $\tan(A+B)$ is equal to

(1) $-2\cos B$ (2) $-2\tan B$ (3) $\cot B$ (4) -2

70. Given a G.P. having an even number of terms. If the sum of all the terms be five times the sum of terms occupying odd places, then the common ratio will be -

(1) 3   (2) 5   (3) 4   (4) 2

85. If maximum and minimum value of $\log_x y$ is M and m where $x \in \{4, 5, 6, 7, 8\}$ and $y \in \{16, 17, 18, ...128\}$ then approximately value of M + m is

61. (1)   **62.** (1)   **66.** (2)   **70.** (3)   **85.** 04.83