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Shift-2

EE24BTECH11063 - Y.Harsha Vardhan Reddy

INTEGER TYPE

- 1) The number of words(with or without meaning) that can be formed from all the letters of the word "LETTER" in which vowels never come together is:
- 2) If \bar{x} and \bar{y} be two non-zero vectors such that $|\bar{x} + \bar{y}| = |\bar{x}|$ and $2\bar{x} + \lambda\bar{y}$ is perpendicular to \bar{y} , then the value of λ is
- 3) Consider the data on x taking the values 0,2,4,8, ...,2n with frequencies ${}^nC_0, {}^nC_1, {}^nC_2, \dots, {}^nC_n$, respectively. If the mean of this data is $\frac{728}{2^n}$, then n is equal to:
- 4) Suppose that function $f : R \rightarrow R$ satisfies $f(x+y) = f(x)f(y)$ for all $x, y \in R$ and $f(1) = 3$. If $\sum_{i=1}^n f(i) = 363$, then n is equal to:
- 5) The sum of distinct values of λ for which the system of equations

$$(\lambda - 1)x + (3\lambda + 1)y + 2\lambda = 0$$

$$(\lambda - 1)x + (4\lambda - 2)y + (\lambda + 3)z = 0$$

$$2x + (3\lambda + 1)y + 3(\lambda - 1)z = 0$$

has non-zero solutions, is :