Discrete 1

EE23BTECH11037-M.Esha

11.9.3.11-The solution of the summation

$$\sum_{k=1}^{11}(2+3^k)$$

is

$$2\cdot 11+\sum_{k=1}^{11}3^k.$$

Simplifying further,

$$= 22+\frac{3^{12}-3}{3-1} = 22+\frac{531441-3}{2}$$

$$= 22+\frac{531438}{2} = 22+265719$$

$$= 265741.$$

Therefore, the solution is 265741.