FUNCTIONS

EE24BTECH11038 - MALAKALA BALA SUBRAHMANYA ARAVIND

I. SECTION B

19) If the fractional part of the number $\frac{2^{403}}{15}$ is $\frac{k}{15}$, then k is equal to: (JEE M 2019-9 Jan(M))

a) 6
b) 8
c) 4
d) 14

20) If the function f:$\mathbb{R} - \{-1, 1\}$A defined by f(x)=$\frac{x^2}{1-x^2}$, is surjective then A is equal to: (JEE M 2019-9 Jan(M))

a) $\mathbb{R} - \{1\}$
b) $(0, \infty)$
c) $\mathbb{R} - [-1, 0)$
d) $(-1, 0)$

21) let $\sum_{k=1}^{10} f(a+k)=16\left(2^{10}-1\right)$,where the function f satisfies f(x+y)=f(x)f(y) for all natural numbers x,y and f(a)=2.then the natural number 'a' is: (JEE M 2019-9 April(M))

a) 2
b) 16
c) 4
d) 3