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:R--1,1A defined by f(x)=$\frac{x^2}{1-x^2}$,is surjective then A is equal to:

(JEE M 2019-9 Jan(M))

(A)R-{1} (B) (0,∞)

(B)R-[-1,0) (D)R-(-1,0)

21. let $\sum_{k=1}^{10}$f(a+k)=16(2^{10}-1),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