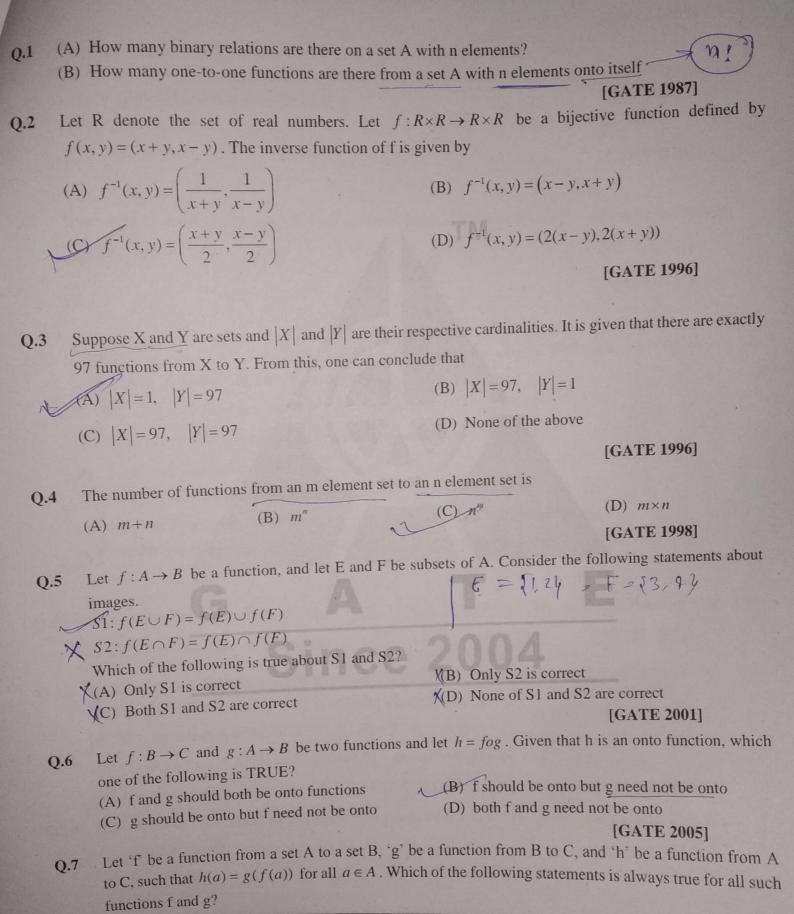
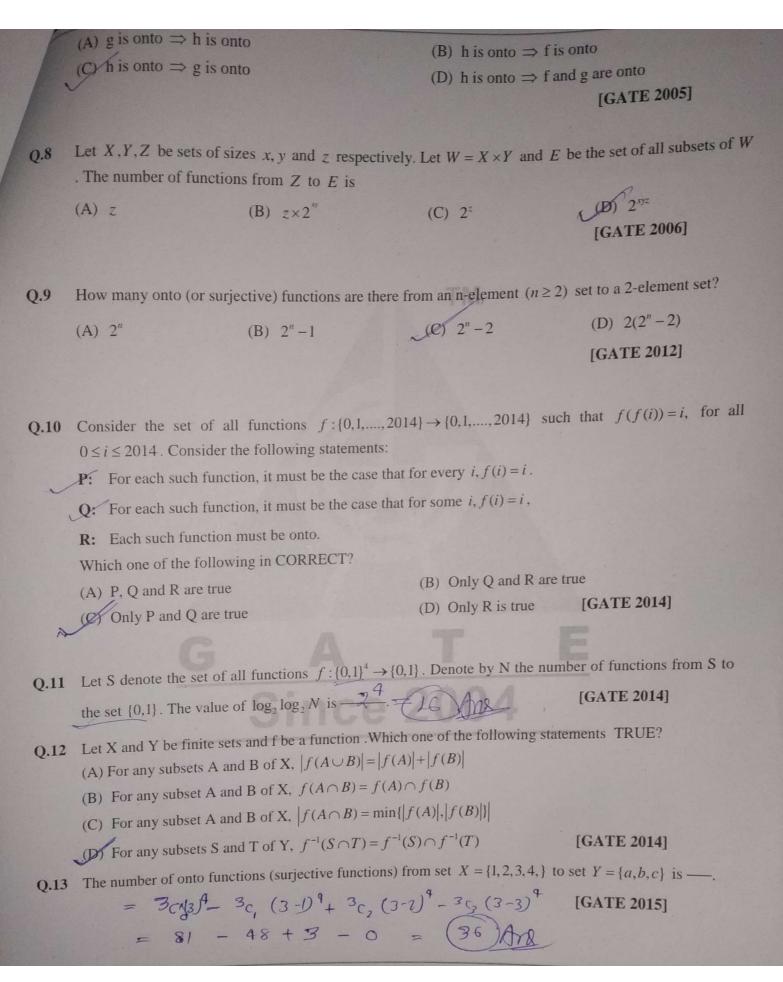
## GATE PREVIOUS YEAR QUESTIONS ON FUNCTIONS





A function  $f: N^+ \to N^+$ , defined on the set of positive integers  $N^+$ , satisfies the following properties:

$$f(n) = f(n/2)$$
 if n is even

$$f(n) = f(n+5)$$
 if n is odd

Let  $R = \{i \mid \exists j : f(j) = i\}$  be the set of distinct values that f takes. The maximum possible size of R is — [GATE 2016]

$$f(3) = f(3+5) = f(8) = f(4) = f(2) = f(2) = f(3+5)$$

$$\xi(a) = \xi(0) = \xi(0) = \chi$$

$$= f(x) = f(x)$$

$$\Rightarrow \int f(t) = f(t$$

ol & y