Que 2: The number that exceeds its square by the greatest amount is
[Roorkee 1990]
A) -1

B) 0

C) 12

D) 1

Correct Answer: C

Solution :

Let the number is x, then $y=x-x^2$
$dy/dx=1-2x$ and $d^2y/dx^2=-2$ (<0)
$1-2x=0$
$\Rightarrow x=1/2$.