

# VITEEE 2021 Memory Based Questions and Answers for 31 May Slot 2

Q: If  $\frac{\sqrt{3}+i}{2} = \frac{a+i}{a-i}$  and  $a$  is a real number, then  $a$  is equal to:

Q: The value of  $c$  for which the mean value of the theorem holds for the function  $f(x) = 2x - x^2$  on the interval  $[0,1]$  is:

1. 0
2.  $\frac{1}{4}$
3.  $\frac{1}{2}$
4.  $\frac{1}{3}$

Q: If  $a \times b$  and  $c \times d$  are perpendicular satisfying  $a.c = \lambda$ ,  $b.d = \lambda$  ( $\lambda > 0$ ) and  $a.d = 4$ ,  $b.c = 9$ , then  $\lambda$  is equal to:

1. 3
2. 6
3. 36
4. 2

Q: The integral  $2 \int_0^{\pi/2} \sin 2x \log \tan x \, dx$  is equal to:

1.  $\pi/2$
2.  $\pi$
3. 0
4. 1