

Q7) We know that

$$f(x,y) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} F(u,v) e^{-j2\pi(ux+vy)} du dv$$

$$\Rightarrow f(0,0) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} F(u,v) e^{-j2\pi(0+0)} du dv$$

$$\Rightarrow f(0,0) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} F(u,v) du dv$$

$F(u,v) \geq 0 \Rightarrow f(0,0)$ is
a real tending to infinity

The same is seen in figure with a sharp spike in positive direction

When $(x,y) \neq (0,0)$
which reduces $f(x,y)$ considerably
 $e^{-j2\pi(ux+vy)}$ term is present