MINOR-2

EEE SEC-I MAX MARKS = 30

Do all the questions

Que-1. Find the integral surface of the PDE

$$(y+zx)p - (x+yz)q = x^2 - y^2$$

Que-2 Find the Fourier series of the funcⁿ $f(x) = x^2$ & it's period is 2π.

Que-3. Find the half range expansion of $f(x) = \sin x$

Que 4. Show that $\int_0^\infty \frac{\sin \pi w \sin xw}{1-w^2}\, dw = \begin{cases} \frac{\pi}{2}\sin x & 0 \le x \le \pi \\ 0 & \pi < x \end{cases}$.

Que-5. Find $\hat{f}_c(w)$ & $\hat{f}_s(w)$ for the function

$$f(x) = \begin{cases} x^2 & 0 < x < 1 \\ 0 & x > 1 \end{cases}.$$