

NOMENCLATURE

<u>S. No.</u>	<u>Symbol</u>	<u>Description</u>	<u>Unit</u>
1	a	Length of rectangular plate	m
2	b	Breadth of rectangular plate	m
3	x, y	Coordinate in the plane of plate	-
4	h	Thickness of the plate	m
5	h_0	Thickness of the plate at $x = y = 0$	m
6	ρ	Mass density per unit volume of the plate's material	kg/m^3
7	E	Young's Modulus	N/m^2
8	E_0	Young's Modulus at reference temperature	N/m^2
9	τ	Temperature excess above the reference temperature at any point on the plate	<i>Kelvin</i>
10	τ_0	Temperature excess above the reference temperature at $x = y = 0$	<i>Kelvin</i>
11	ν	Poisson Ratio	--
12	\tilde{D}	Visco-elastic operator	--
13	D_1	Flexural rigidity	$N.m$
14	γ	Slope of variation of E and τ	<i>Degree</i>
15	t	Time	<i>sec</i>

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16	$T(t)$	Time function	<i>sec</i>
17	$W(x, y)$	Deflection function	<i>m</i>
18	$w(x, y, t)$	Deflection of plate i.e. Amplitude	<i>m/sec</i>
19	α	Thermal gradient	$^{\circ}K/m$
20	β_1	Taper constant in <i>x</i> -direction	--
21	β_2	Taper constant in <i>y</i> -direction	--
22	G	Shear modulus	N/m^2
23	M_x, M_y	Bending moments	<i>N.m</i>
24	M_{xy}	Twisting moment	<i>N.m</i>
25	λ	Frequency	<i>Hz</i>
26	η	Visco-elastic constant	$N.s/m^2$
27	K	Time period	<i>sec</i>
28	Λ	Logarithmic decrement	--