(iii) The double finite Fourier sine transform method yielded solutions for the unknown deflection as a rapidly convergent double trigonometric sine series of infinite terms.

(iv) The deflection was found to be decomposable or expressible as flexural and shear deflection components

(v) The contribution of the shear deflection to the total deflection reduces as the ratio of D_s/D increases.

(vi) This paper will hopefully enhance our understanding of the deflection behaviour of simply supported isotropic sandwich plates under uniformly distributed transverse loads.

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NOMENCLATURE

$w(x, y)$	transverse deflection of arbitrary points (x, y) on the plate domain
$q(x, y)$	distribution of transversely applied load over the plate region
x, y	in-plane Cartesian coordinates describing points on the plate domain.
μ	Poisson's ratio of plate material
E	Young's modulus of elasticity
h	plate thickness
G_c	modulus of shear rigidity of the core material
D_s	shear modulus of the core
D	flexural modulus
$k(r, s)$	finite sine transformation kernel
$2a$, $2b$	dimensions of the sandwich plate in the x and y coordinate axes respect (i.e. breadth and length)
r, s	integers
∞	infinity
$w(r, s)$	deflection in the finite sine transform space
$q(r, s)$	distributed transverse load in the finite sine transform space
q_0	intensity of uniformly distributed load
α	plate aspect ratio
FSDT	first order shear deformation theory

Subscripts

max	maximum
f	flexural
s	shear

Mathematical symbols

∇^2	Laplacian
$\nabla^4 = \nabla^2\nabla^2$	biharmonic operator
$\int$	integration sign or integral
$\iint$	double integration sign or double integral
Σ	summation
$\Sigma\Sigma$	double summation
$\frac{\partial}{\partial x}$	partial derivative with respect to x
$\frac{\partial}{\partial y}$	partial derivative with respect to y
$\frac{\partial^2}{\partial x \partial y}$	mixed partial derivative