APPENDIX A

FLOWCHART FOR OPTIMIZATION PROBLEM USING HYDYN

Optimum.for — Fugen.for — Area2.dat — modified tam.dat

Region.dat — no. of regions

Symmetric/Unsymmetric/ Antisymmetric

No. of properties of layers in each Region

Comp.dat — el, et, amlt, glt and rho of material used

Beamin.dat — prismatic/non prismatic, no. of regions, Element no.

No. of nodes, no. of elements
Coordinates of each node
Nodes connecting each element.

Type of element

Proper.dat — gives properties of the section
Region.dat

Close.dat — open/closed, if closed no. of cells

Data Length, support condition and load of the beam are given

Convert.for — Tam.dat — thickness

Angle of orientation of lamina

Material of the lamina

Area1.dat — value of varying data
Area2.dat

Compopt — all.dat — allowable values of data to be optimized
Max.dat — gives minimum weight as objective function