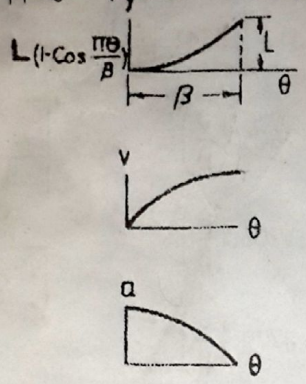
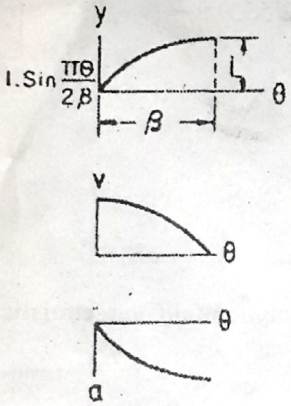
P-1, H-1, H-2, H-5 - Rise - C-1, C-2, C-5

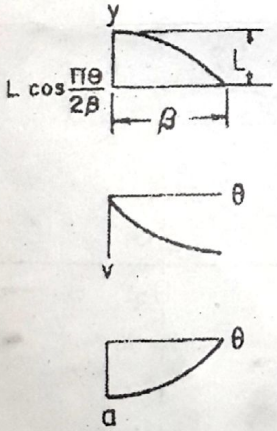
P-2, H-3, H-4, H-6 - Fall - C-3, C-4, C-5



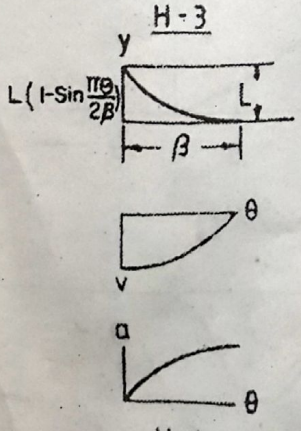
H - 1



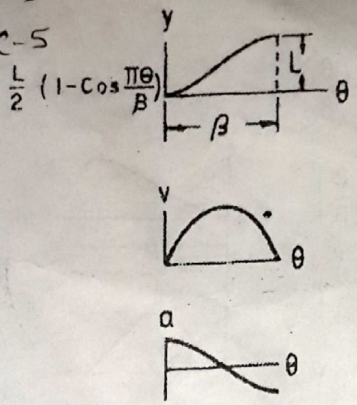
H - 2



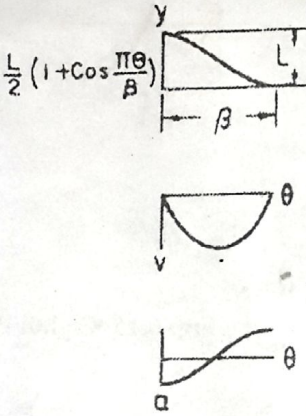
H - 3



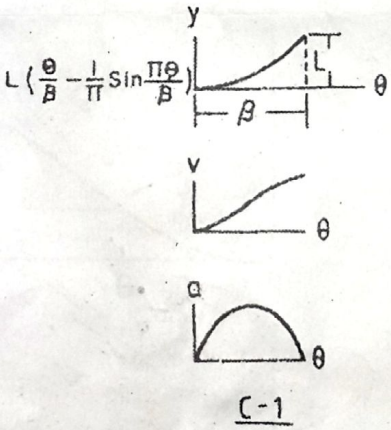
H - 4



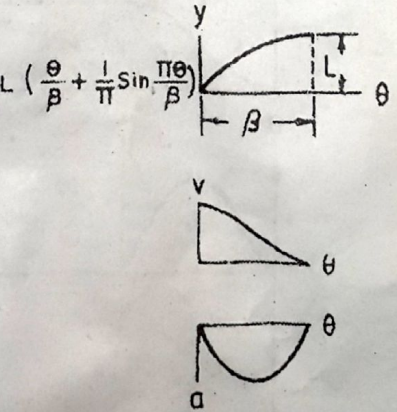
H - 5



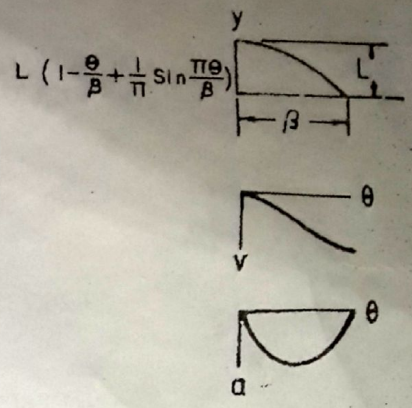
H - 6



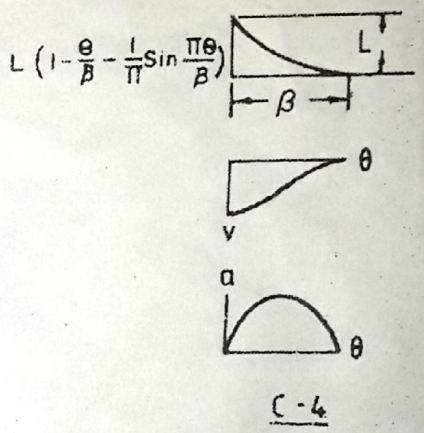
C - 1



C - 2



C - 3



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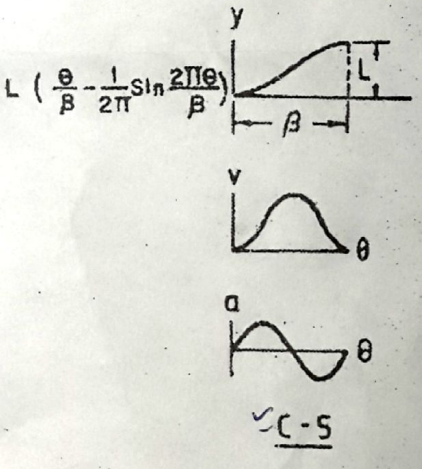
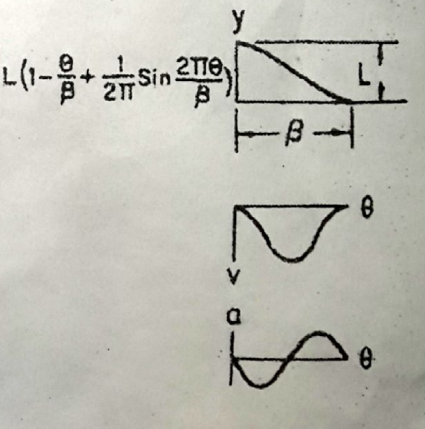


C - 5



C - 6

Fig. 6.13 Harmonic Motion Characteristics

Fig. 6.14 Cycloidal Motion Characteristics

$$y = L[6.09755\left(\frac{\theta}{\beta}\right)^3 - 20.78040\left(\frac{\theta}{\beta}\right)^5 + 26.73155\left(\frac{\theta}{\beta}\right)^6 - 13.60965\left(\frac{\theta}{\beta}\right)^7 + 2.56095\left(\frac{\theta}{\beta}\right)^8$$

$$y = L[1 - 2.63415\left(\frac{\theta}{\beta}\right)^2 + 2.78055\left(\frac{\theta}{\beta}\right)^5 + 3.17060\left(\frac{\theta}{\beta}\right)^6 - 6.87795\left(\frac{\theta}{\beta}\right)^7 + 2.56095\left(\frac{\theta}{\beta}\right)^8$$

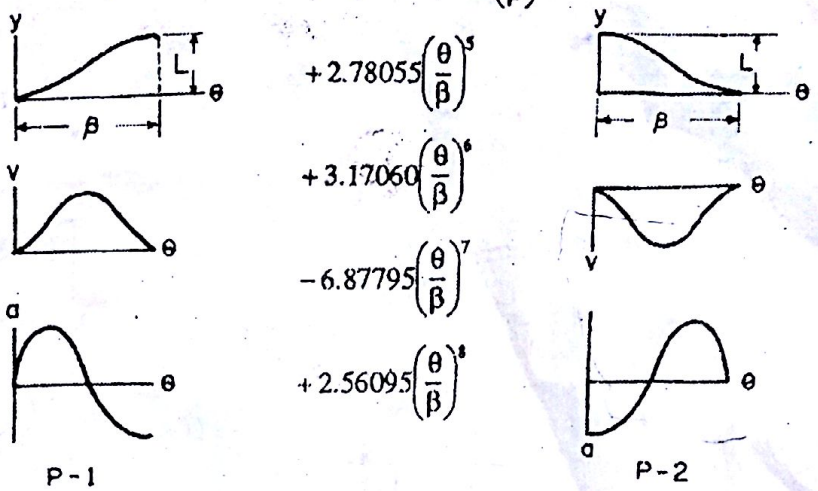


Fig. 6.15 Eighth Power Polynomial Characteristics

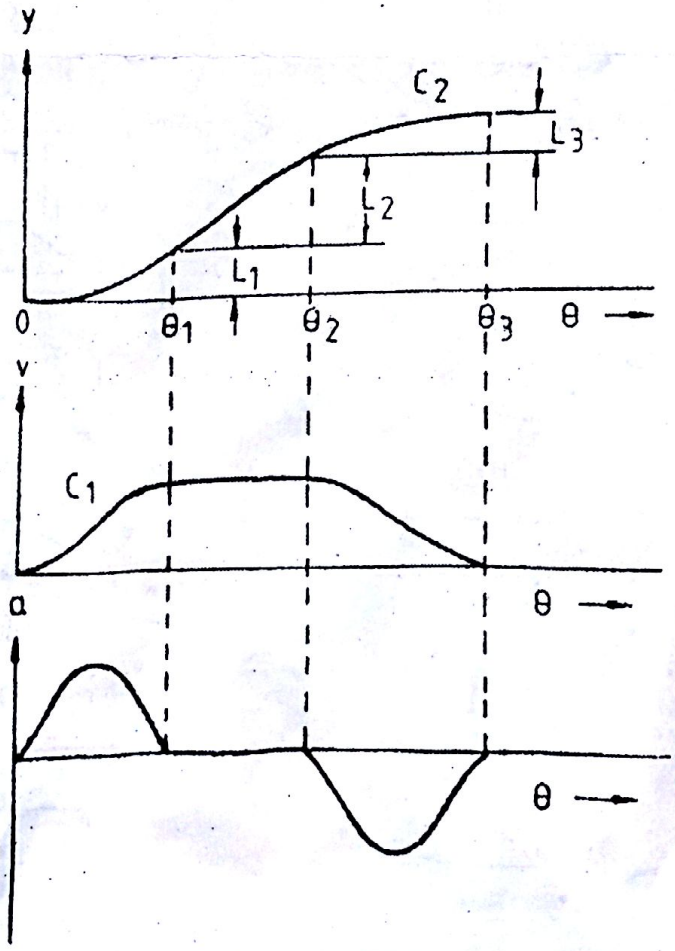


Fig. 6.16 Displacement, Velocity, and Acceleration Solutions