

BETM - II MJC

Unit: -2

Lissajous Figures

Introduction: -

It is also known as Lissajous curves or Lissajous patterns, are graphical representations of complex harmonic motion resulting from the superposition of two perpendicular sinusoidal oscillations. The shape of a Lissajous figure is determined by the ratio of the frequencies of the two input signals. Like frequency ratio 1:1 or 1:2 and so on.

When a particle is acted upon simultaneously by two simple harmonic motion (S.H.M.s) at right angles to each other, the resultant path traced out by the particle is called "Lissajous figures". The shape of the resultant path i.e. figure depends on

the time period, phase difference and amplitude of the two S.H.M.s. The two S.H.M.s may be mechanical (like tuning forks) or alternating voltages (like two electrical a.c. sources) acting simultaneously at right angles to each other.

