

Maharaja Sris-Chandra College.

Internal Assessment of Semester-V MTH-G-DSE-A-TH.

Full marks-10.

Particle Dynamics.

1. Prove that if the time t be regarded as a function of position x , the retardation is $u^3 \frac{dt}{dx^2}$, where u is the velocity. (5)
2. The displacement of a moving point of any point is given by (5)
 $x = a \cos kt + b \sin kt$, show that this point executes a S.H.M.