**II UNIT TEST**

**CLASS XII MATHS**

**Time -40 min One marks Questions M.M.40**

**NOTE- *Attempt all questions*.**

**1.**

**2.**

**3. If the rate of change of volume of a sphere is equal to the rate of change of its radius , find the radius of the sphere .**

**4. Find the slope of the tangent to the curve x = t2 , y = 2t at t= 2 .**

**6**

**Two marks Questions**

**7. Find the point at which the tangent to the curve y = - 1 has its slope .**

**9.Using differentials , find the approximate value of**

**Four Marks Questions**

**10. Find the intervals in which the function f(x) = x3 – 12x2 + 36x + 17 is**

**(a) Increasing (b) decreasing.**

**11. Let f(x) = . if f(x) is continuous at x= , find a &b.**

**12. If + = , show that =0.**

**13.**

**Six Marks Questions**

**14. Prove that the volume of the largest cone that can be inscribed in a sphere of radius a is of the volume of the sphere .**

**15. Integrate: dx**

**THE END**