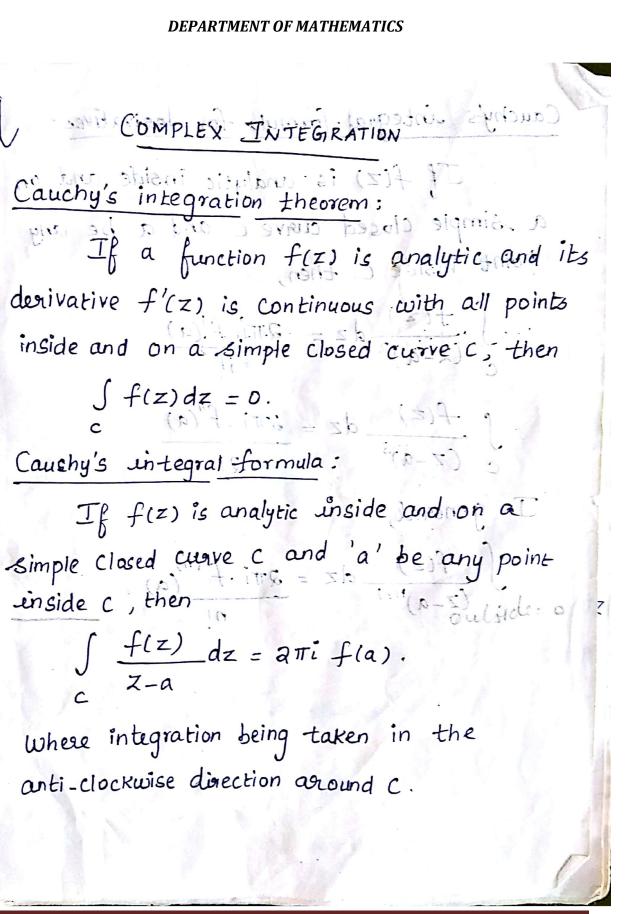


## SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)



**Complex Integration** 





## SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution) DEPARTMENT OF MATHEMATICS



I Evaluate  $\int \frac{\cos \pi z}{z-1} dz$ , where c is |z| = 2Soln:  $f(z) = \cos \pi z$  9 stonlov= a = 1 C: |z| = 2a=1 lies inside C 111 < 2 By Cauchy's integral formula,  $\int \frac{\cos \pi z}{z-1} dz = 2\pi i f(1) - \int f(z) = \cos \pi z$ Evaluate  $\int \frac{dz}{(z-3)^2}$  where c is the i Evaluate J. de cubere (i=1z1 alaris -Soln: a = 3 lies outside the cipcle 121=1.