Q3. An optical fiber has a NA of 0.20 and refractive index of cladding is 1.59. Determine the core refractive index and the acceptance angle for the fiber in water which has a refractive index of 1.33.

**Given:-** NA=0.20; µ2=1.59; µo=1.33

**Formula:-**

**Solution:-** N.A.=

µ1= = =1.6025

= sin-1 =8.64o

**Ans:- The R.I. of core is 1.6025 and acceptance angle 8.64o**