

INTERNAL ASSESSMENT
STRENGTH OF MATERIALS
1st Year CE, F.M- 20

Q1. A rectangular R.C simply supported beam of length $(2+R)$ m and cross-section 100 mm x 200 mm is carrying an U.D.L of 10 kN/m throughout its span. Find the maximum slope and deflection. Take $E= 2 \times 10^4 \text{ N/mm}^2$

Q2. A hollow cylindrical cast iron column of 150 mm external diameter and 15 mm thickness, R m long and is hinged at one end and fixed at the other. Find a) the ratio of the Euler's and Ranking's load, b) for what length, the critical load by Euler's and Ranking's formula will be equal.

[R is the last digit of your roll no.]

The answer script should be sent in the following email Id along with the signature of the student in all pages.

email Id: civilhodjcgp2020@gmail.com Last date of submission: 10.08.2020

The original copy is to be submitted only when the Institution is open.

(Dr.Saibal Chakraborty)
Head, Civil Engineering Dept.