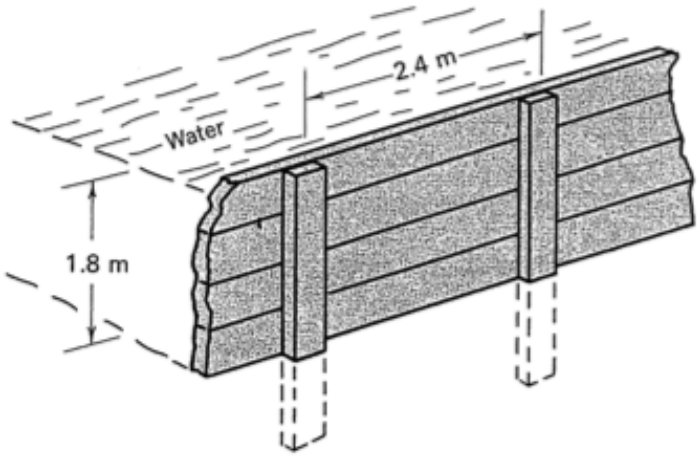
Name: _____ **Roll no.** _____

Department of Aerospace Engineering, Indian Institute of Technology, Madras.

AS 2010: Basic strength of materials. Quiz 5

1. A wooden dam is made of planks fastened to uprights which are driven into the river bed. The uprights are a distance 2.4 m apart, and the water is 1.8 m deep. Draw shear-force and bending moment diagrams for the uprights.



Name: _____ **Roll no.** _____

Department of Aerospace Engineering, Indian Institute of Technology, Madras.

AS 2010: Basic strength of materials. Quiz 2

2. A carpenter with a power-saw has a 6 m plank of uniform weight w_0 and two sawhorses (supports). He wishes to cut a 1.8 m length of plank. In order to minimise splitting the ends, he wishes to cut at a point, where the bending moment is zero. If he places one sawhorse at the end of the plank, where should he put the other sawhorse, so that the bending moment is zero 1.8 m from the other end of the plank?