

QUESTION

1. A rectangular plate is subjected to a uniformly distributed load of 10 kN/m^2 acting downwards. The plate is supported by a pin support at the bottom left corner and a roller support at the bottom right corner. The plate is divided into four quadrants by a vertical line and a horizontal line, both passing through the center of the plate. The dimensions of the plate are 4 m by 4 m . Determine the reaction forces at the supports and the internal forces at the center of the plate.

