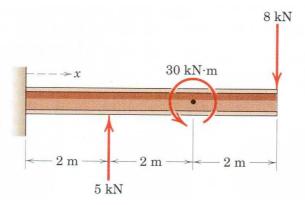


Alexandria Higher Institute of Engineering & Technology (AIET)				
Department of: General Preparatory Year		0 <sup>th</sup> Year		
ME001	Mechanics I		Midterm-of-Semester-1 Exam, Dec., 20, 2011	
<b>Examiners:</b>	Dr. Sayed I	Hassan and Dr. Rola A	Afify	Time: 1 hour

## **Answer the following questions:**

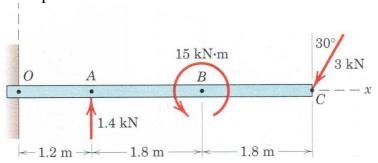
## **Question One: (3 marks)**

Determine and locate the resultant R of the two forces and one couple moment acting on the beam.



## **Question Two: (3 marks)**

The 500 kg uniform beam is subjected to the three external loads shown. Compute the reactions at the support at point O.



## **Question Three: (4 marks)**

Determine the force in each member of the loaded truss and specify whether they are in tension or in compression.

