Ministry of Higher Education
Giza Higher Institute of Engineering & Technology
Civil Engineering Department
Course Name: **Theory of Structures (4)**
Course Code : **CIV 302** Date : **17 / 3 / 2018**

Academic Year : **2017/2018**
Semester : **Second**
Level : **3rd**
Time : 1 **Hour**
Examiner**:** ***Dr. M. Abdel-Kader***

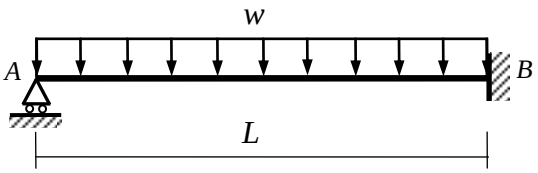
Mid-Term Exam

Total Marks**: 20** No. of Questions**: 2**

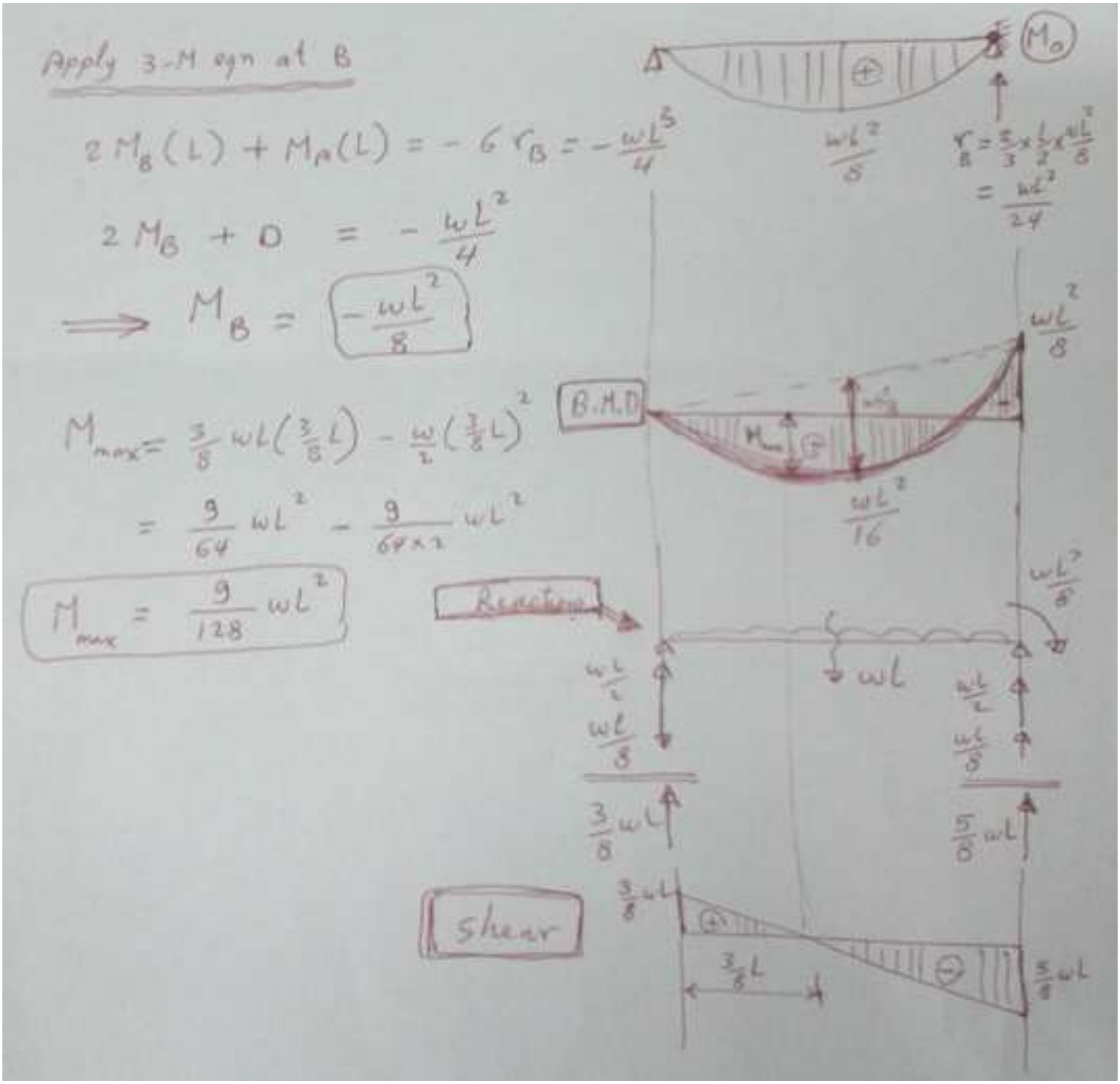
Student Name: Code:

Question (1): (10 Marks)

For the shown beam, using the **three-moment equation**, draw the shear force and bending moment diagrams due to the applied load.

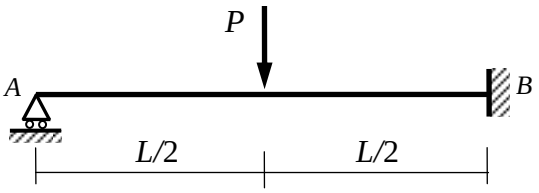


Solution:

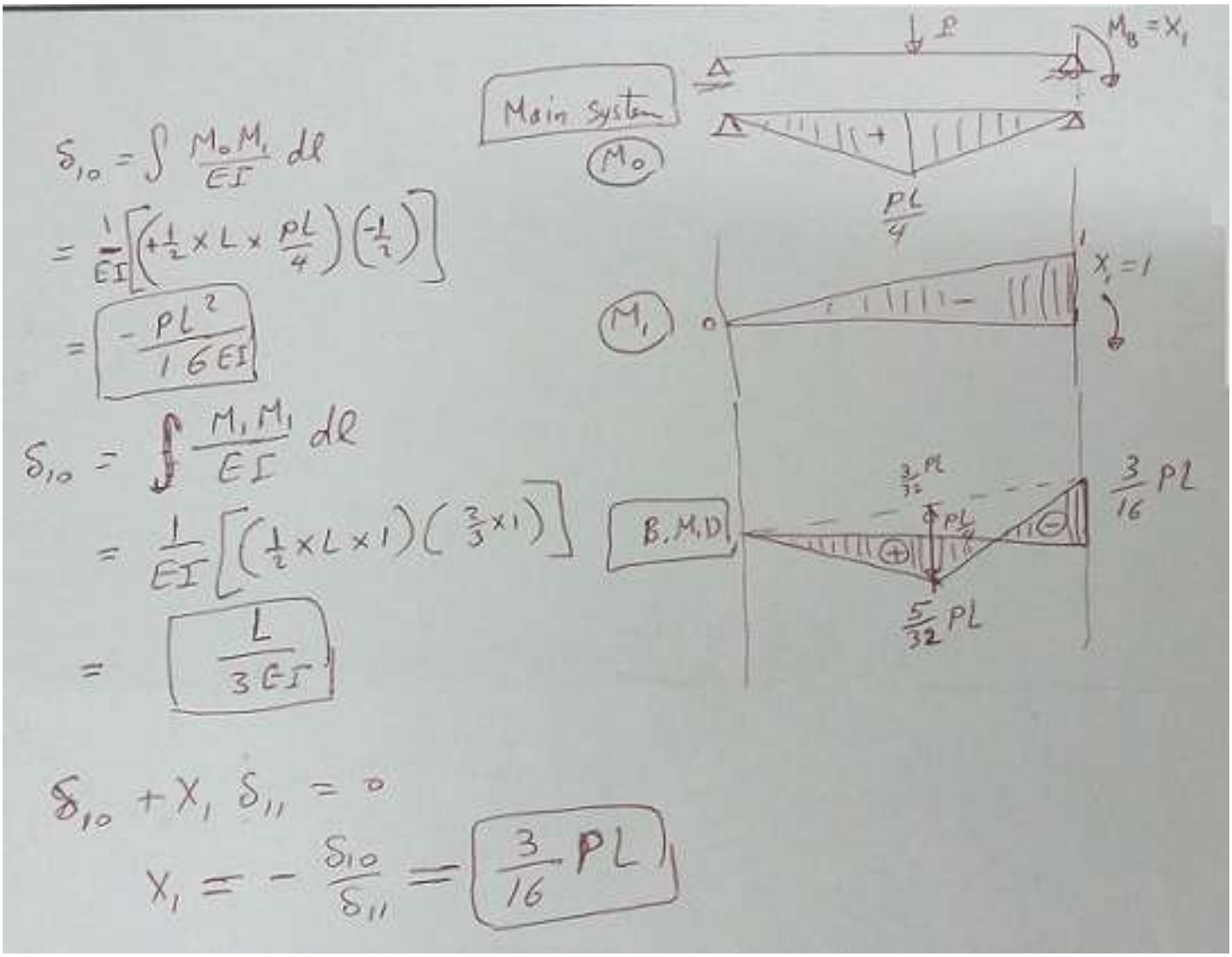


Question (2): (10 Marks)

For the shown beam, using the **Consistent Deformations** (**Virtual Work**) method, draw the bending moment diagram due to the applied load.



Solution:



With my best wishes

Dr. M. Abdel-Kader