

系別：土木工程學系

科目：結 構 學

准帶項目請打「V」	
V	簡單型計算機

本試題共 1 頁，4 大題

- [1]. Analyze the structure in Fig. 1. Use slope deflection method only. Draw the moment diagram.  $E$  and  $I$  are constant for all members. 30 %
- [2]. Solve the structure shown in Fig. 2. Use matrix displacement method, with  $E=30000\text{ksi}$ ,  $I=1000\text{ In}^4$ (member BC and CD). Area of member AC=2.  $\text{In}^2$ . The axial deformation of member BC and CD are neglected. Draw the moment diagram. 30 %
- [3]. Find out the axial forces of member BC and CE in structure shown as Fig.3. 20 %
- [4]. Calculate the slope at left side of the joint B for the structure shown in Fig. 4.  $E$  and  $I$  are constant for two members. Use unit load method or conjugate beam method. 20 %

