



**MidTerm  
Exam  
MDP 234**



Benha University  
Mechanical Engineering Department (Power)

Shoubra Faculty of Engineering  
2<sup>nd</sup> year 2016/2017

Student Name: .....

**1. Question (1)**

**Marks (10)**

For the shown mechanism crank 2 rotates with constant angular velocity  $\omega_{21}=25 \text{ s}^{-1}$

Given  $M_l=10 \text{ cm/cm}$

- a) Construct the velocity and acceleration diagrams.
- b) Determine the velocity and acceleration of both slider link 5 and 6.
- c) Determine  $\omega_{31}, \omega_{41}, \alpha_{31}, \alpha_{41}$

