Theory of machines

Homework number: [4]

Student name:_____

Student registration number:_____

Class number: ○ class [1] 12:10 – 13:00   ○ class [2] 12:45 – 14:15

Assume the following cam profile cam program:

Cam angle (in degree)	Follower segment function
From 0 to 60	Parabolic rise from 0 to 4cm
From 60 to 120	SHM rise from 4cm to 6cm
From 120 to 180	Dwell
From 180 to 240	Return SHM from 6cm to 4cm
From 240 to 300	Return cycloid from 4cm to 0 cm
From 300 to 360	Dwell

Assume:

1. The cam basic circle radius is 10cm.
2. The cam angular velocity is 600 RPM.

Complete the following table:

Cam angle (degree)	Follower disp. (m)	Follower velo. (m/s)	Follower acc. (m/s$_2$)	Cam radius (cm)
40				
120				
230				
280				