Q2)

INTRODUCTION

In this project we will design a flyback converter. We will start with design a transformer and we will design a controller. In this process we will select core material, switch, diode, capacitor etc. During the transformer design, magnetizing inductance is important to stay in CCM. Also, effects of snubber are observed.

For controlling the output voltage, we need to design a controller which feedback the output voltage to the gate driver of the switch which determines the duty cycle. In design procedure, we should pay attention to keep a stabilized operation of the converter. For this purpose, gain of the error amplifier at switching frequency should be low. Moreover, we should keep phase margin of the controller at least -45 degree.