



Faculty of Electrical & Electronics Engineering
DEE3143 Basic Electrical Machine & Power System

Name: _____

ID: _____

Section: _____

Date: _____

(Failed to complete all the particulars above will be penalized 2 marks)

QUIZ 3

Question

A 6 pole DC machine has a flux per pole of 25mWb. The armature has 536 conductors connected as a lap winding. The DC machine runs at 1200rpm and it delivers a rated armature current of 125A to a load connected to its terminals. Determine:

- (i) The machine constant, K
- (ii) Generated voltage
- (iii) Conductor current
- (iv) Electromagnetic torque
- (v) Power delivered by the machine.

[10 marks]