QUESTION 7: Adding a Centrifugal pump as a load to the EE and SE Motor:

7.a) Operating speed

Speed when operating pump for EE motor: 1416.75 rpm Speed when operating pump for SE motor: 1405.50 rpm

7.b) Current drawn

Current drawn when operating pump for EE motor: 6.3926 A Current drawn when operating pump for SE motor: 6.6546 A

7.c) Efficiency

Efficiency when operating pump for EE motor: 89.1560 % Efficiency when operating pump for SE motor: 86.2766 %

7.d) Output power

Output power when operating pump for EE motor: 2925.0831 W Output power when operating pump for SE motor: 3019.3662 W

7.e) Input power

Input Power drawn when operating pump for EE motor: 3280.8605~W Input Power drawn when operating pump for SE motor: 3499.6335~W The difference in input power is: 218.7729~W