ASSIGNMENT 2……………………..SUBMITTED ON -2/4/2018

1. with the help of neat diagram explain drum controller for speed control of DC motor.
2. prove that starting efficiency in series parallel control with four motors is 72.72%.
3. write short notes on
* electrical braking
* buck boost control
* thyristor control of traction motor.
* booster transformer
* metadyne control
* current collection system in electric traction
1. state briefly the different methods of electric braking. explain regenerative braking.
2. which motor is most suitable for traction motor and why?
3. explain with dig plugging and rheostatic braking as applied to dc series motors.
4. draw the essential characteristic of a traction motor.
5. what is catenary? what is its use? name the different catenary construction used in traction?
6. Explain the need of overhead catenary system. Draw a neat sketch of single catenary system of a standard electric system.
7. Draw and explain the series parallel control circuit arrangement for controlling two dc series motors with four external resistances in each motor explain each step in short.
8. what is transition period in series parallel control. explain each transition method in detail.
9. explain with diagram the different types of current collection system used for overhead electrification
10. write the factors which prove that dc series motor is the most suitable for traction services.
11. draw the block diagram of of AC electrical locomotive.