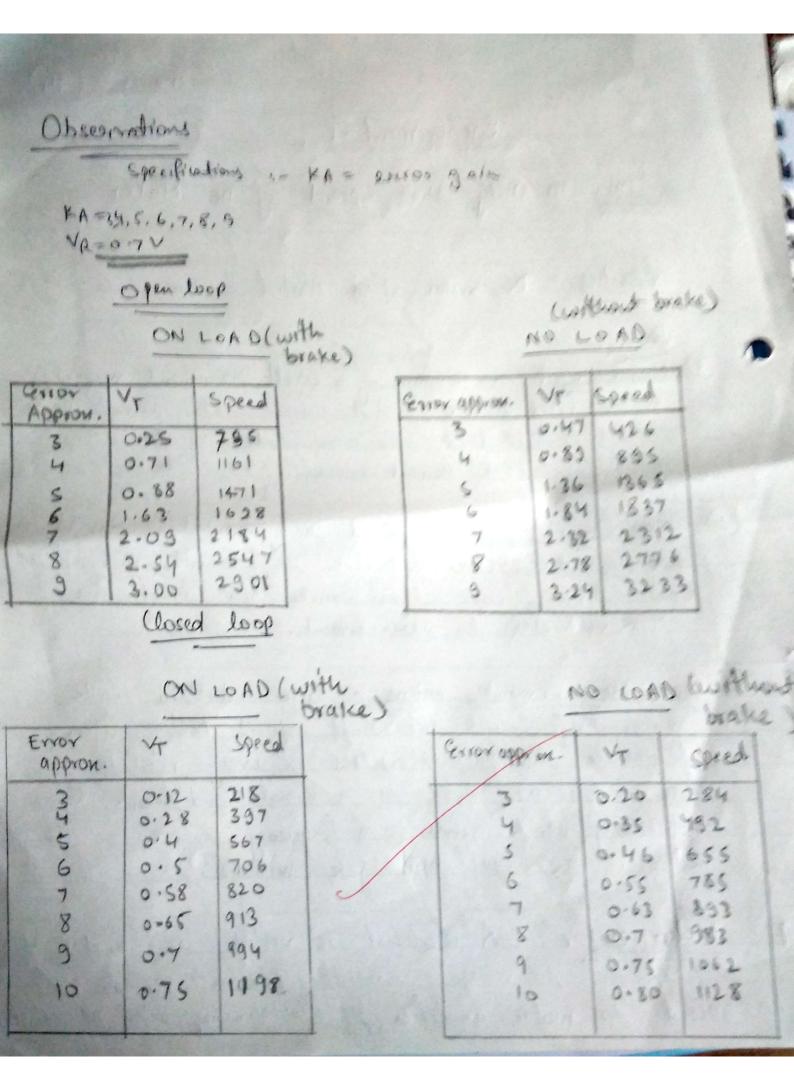
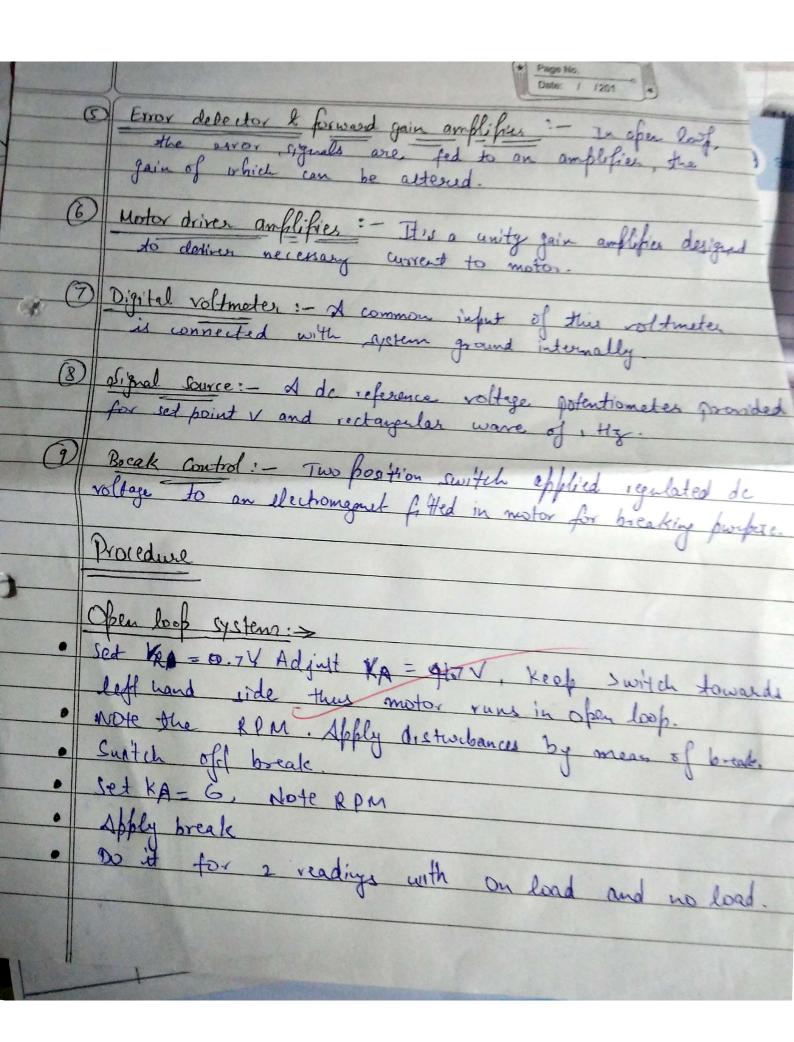
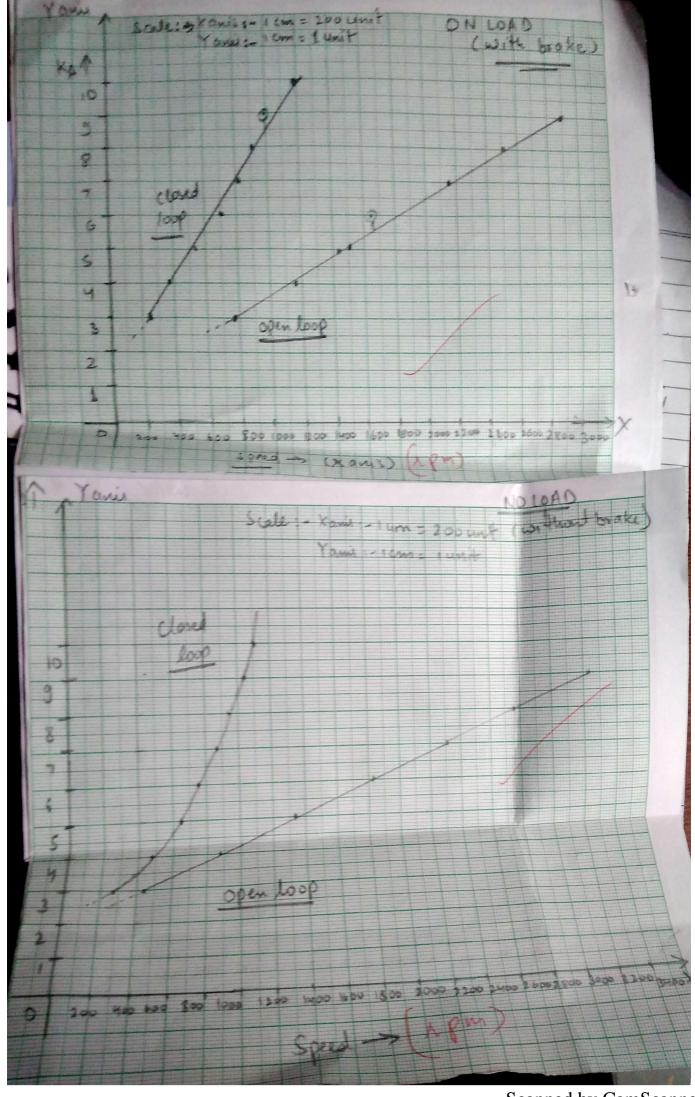
Aim. To study the speed of De Motor Apparatus DC motor speed control oystem 1 Motor unit: - comprises of a small permanent magnet oc motor, rated V=12V, rated current at normal run Lou A at full load, An overanent protection circuit is incorporated if arrent enceeds. 2 Control unit: — It has speed measurement system, elector tachogeneerator, Error detector to provand gain amplifice motor drive circuit, signal dource, break control and digital voltmeter for measurement. 3 Speed Measurement yetem: - Disc attached with photodiode thus generally repulses for every resolution.

These pulses are feed to a signal conditioner. The output of which sends to a signal conditioner which indicates the revolutions per minute. Tachogaerator: - A proportional de voltage is generated a forguency to voltage conventor. This voltage can be applied to motor amplifier by switchnessly tacks out





| | Closed look system: >> Set KA = 4 and put Surtch towards Vr at VR = 0.7V thus to make close look circuit. Repeat steps as before taken for ofen look system. |
|--------------|--|
| | Plot a graph (compayion). Laking minimum & manimum gain for open loop & closed loop system with load off I on respectively. |
| | |
| | Result |
| | Tesus . |
| | we have plotted the graphs/cornes or KA ve speed in Open loop I colosed loop systems with $VP = 0.7V$ and adjusting KA. |
| | Precautions |
| | Pre (auditory) |
| | 0 10 0 000 |
| • | Handle the equipments carefully. |
| | Handle the equipments carefully. Suitch off the power supply after conducting |
| | the enbeginent. |
| $-\parallel$ | que enperiment |
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