Date: 22 Sept-25 Sept

Tasks Alloted:

Different types of Voltage regulation.

i. Implement PTN78020WAH using a 12V source, Pot meter

ii. Document list of voltage regulators

List of PTN Regulators from Texas Instruments:

1. PTN78020 Series:

a. PTN78020W

i. Input Voltage Range 7V-36V

ii. Output Voltage Range 2.5-12.6

iii. Max 6A Output Current

iv. Efficiency upto 96%

b. PTN78020H

i. Input Voltage Range 15V-36V

ii. Output Voltage range 11.85V-22V

iii. Max 6A Output Current

iv. Efficiency upto 96%

2. PTN78060 Series:

a. PTN78060W

i. Input Voltage Range 7V-36V

ii. Output Voltage range 2.5V-12.6V

iii. Max 3A Output Current

iv. Efficiency upto 96%

b. PTN78060H

i. Input Voltage Range 15V-36V

ii. Output Voltage range 11.85V-22V

iii. Max 3A Output Current

iv. Efficiency upto 96%

3. PTN78000 Series:

a. PTN78000W

i. Input Voltage Range 7V-36V

ii. Output Voltage range 2.5V-12.6V

iii. Max 1.5A Output Current

iv. Efficiency upto 96%

b. PTN78000H

i. Input Voltage Range 15V-36V

ii. Output Voltage range 11.85V-22V

iii. Max 1.5A Output Current

iv. Efficiency upto 96%



For PTN78020W, RP=6.49kΩ

Implemented the circuit:

Input Voltage=12.18 V

Output Voltage=5.06 V

So RSET =21 kΩ

Changed RSET to 6.77 kΩ

VO should be 7.67V Comes out be 7.7V in multimeter

Hence verified!