Ex. No. 5

Date: 24/10

Design of Single phase Half wave and Full wave Rectifiers

Aim: To verify and obtain the output wave form of single phase half wave and full wave rectifier circuit using CIS Capture (PSpice)

Apparatus/Tool required:

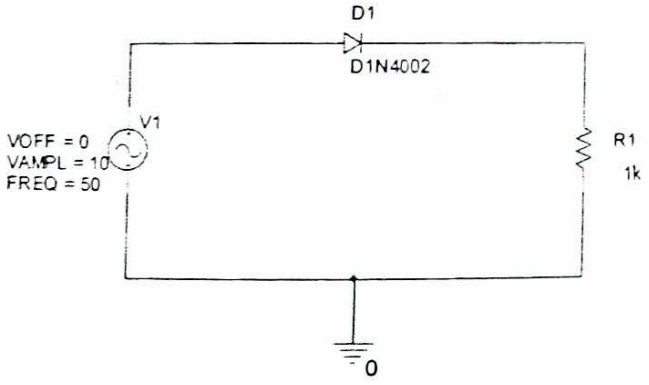
ORCAD / PSpice simulator -> Diode Library - D1N4002/4007,
Source Library – Vsin & Ground (GND) – 0(zero)
Analog Library – R

Simulation Settings: Analysis Type - Time Domain

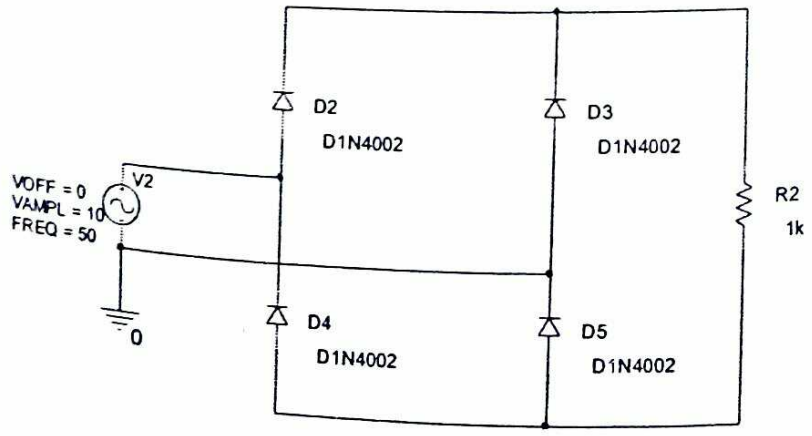
Run to time: 40ms (for 2 cycles)

Circuit Diagram:

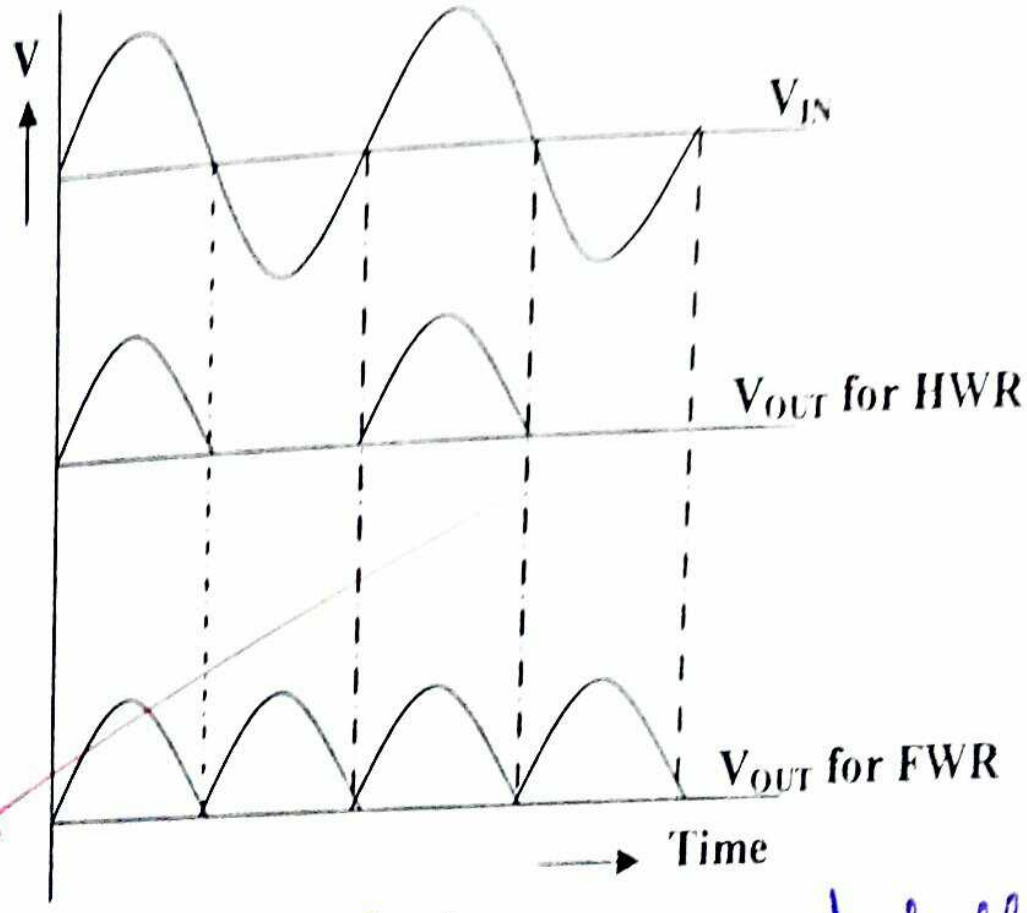
Single phase Half – wave Rectifier



Single phase Full – Wave Rectifier



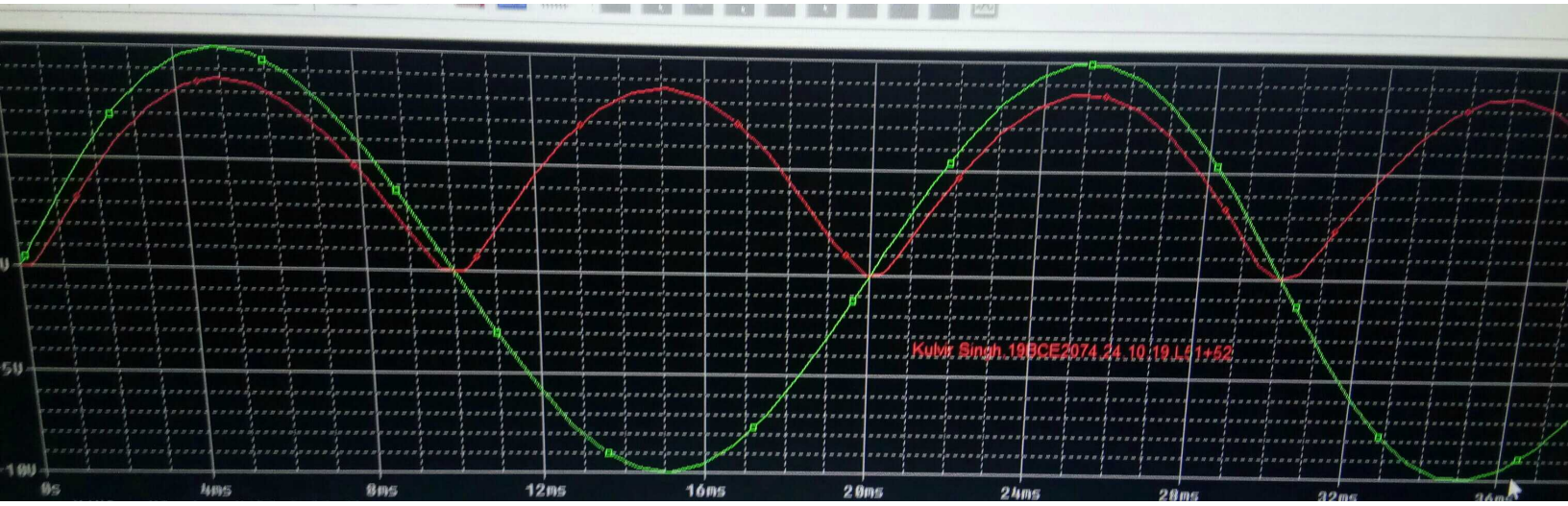
Model Graph:



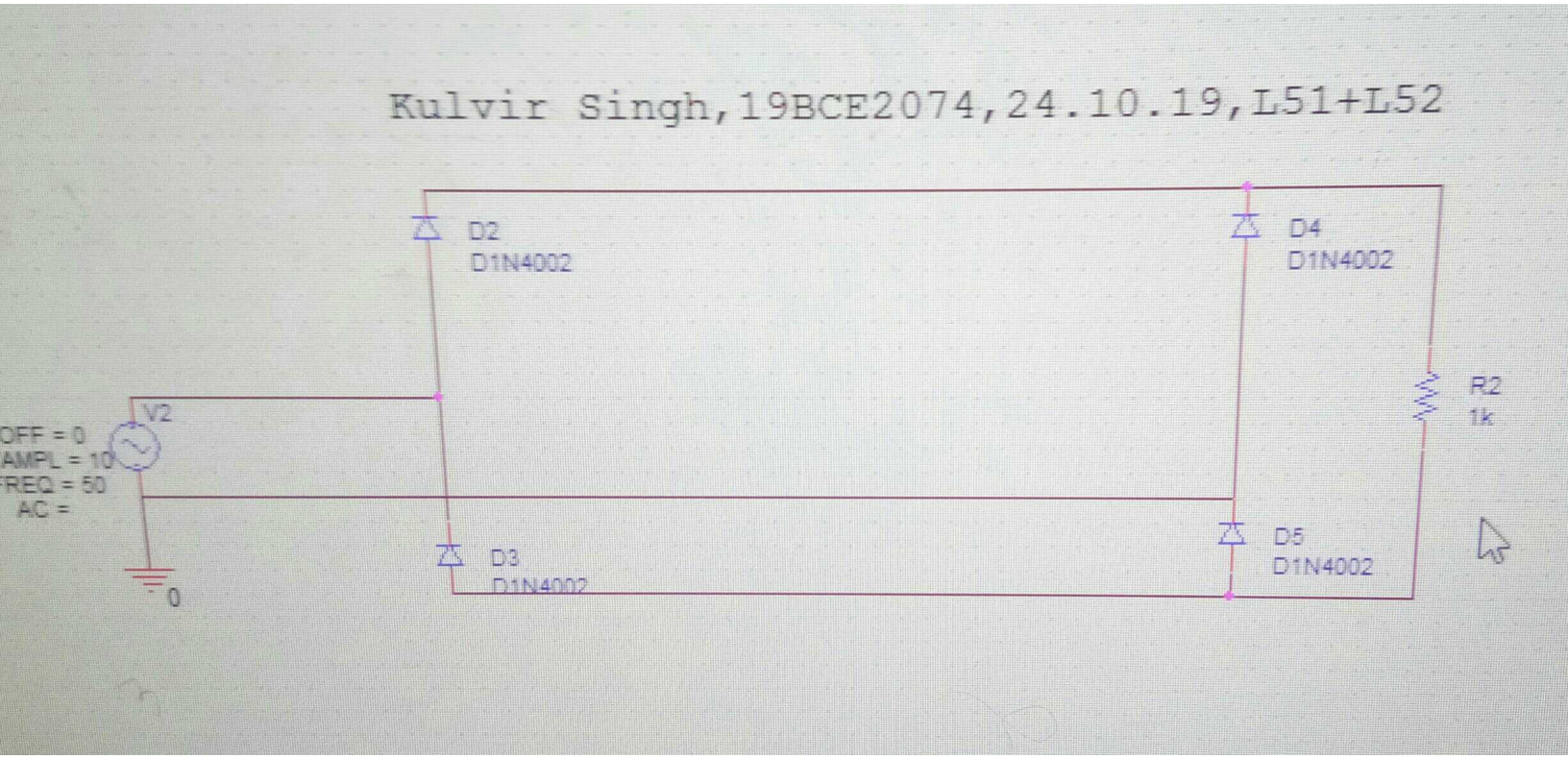
Result The single phase half wave and full wave rectifier circuit & output wave form have been obtained and verified in simulation (capture software) experiment

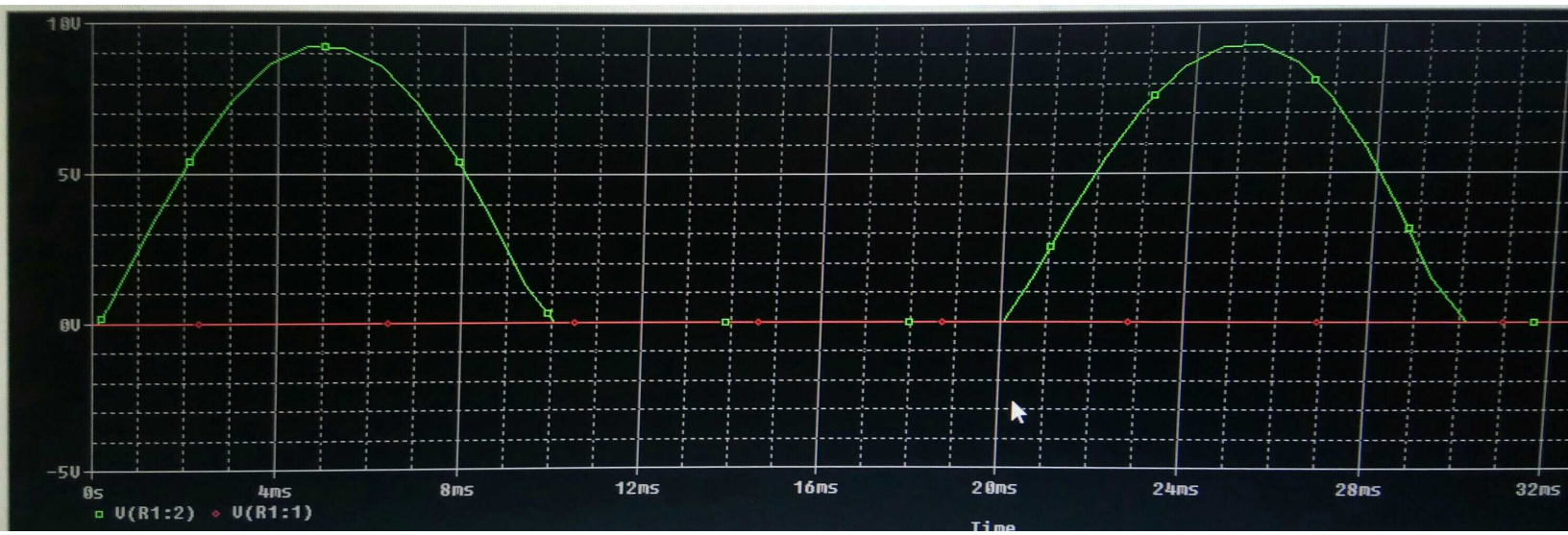
Inference

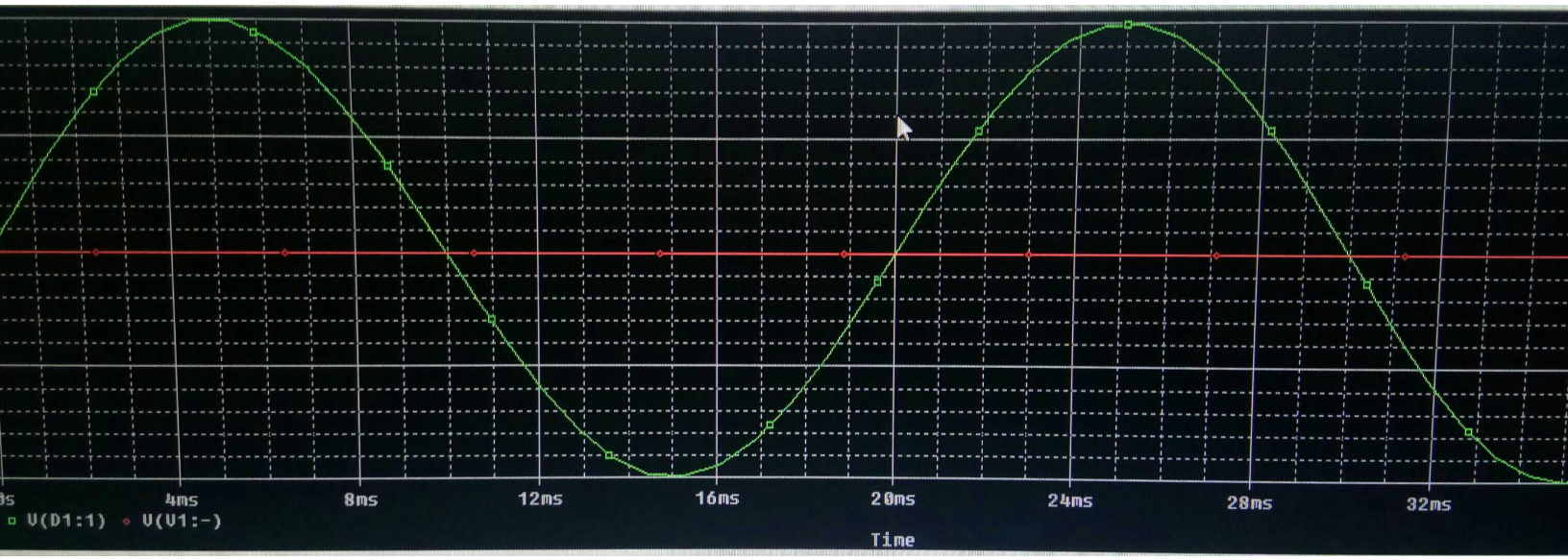
Reg. No: 19BCE2074 **Name:** KULVIR SINGH **Date:** 24.10.19.

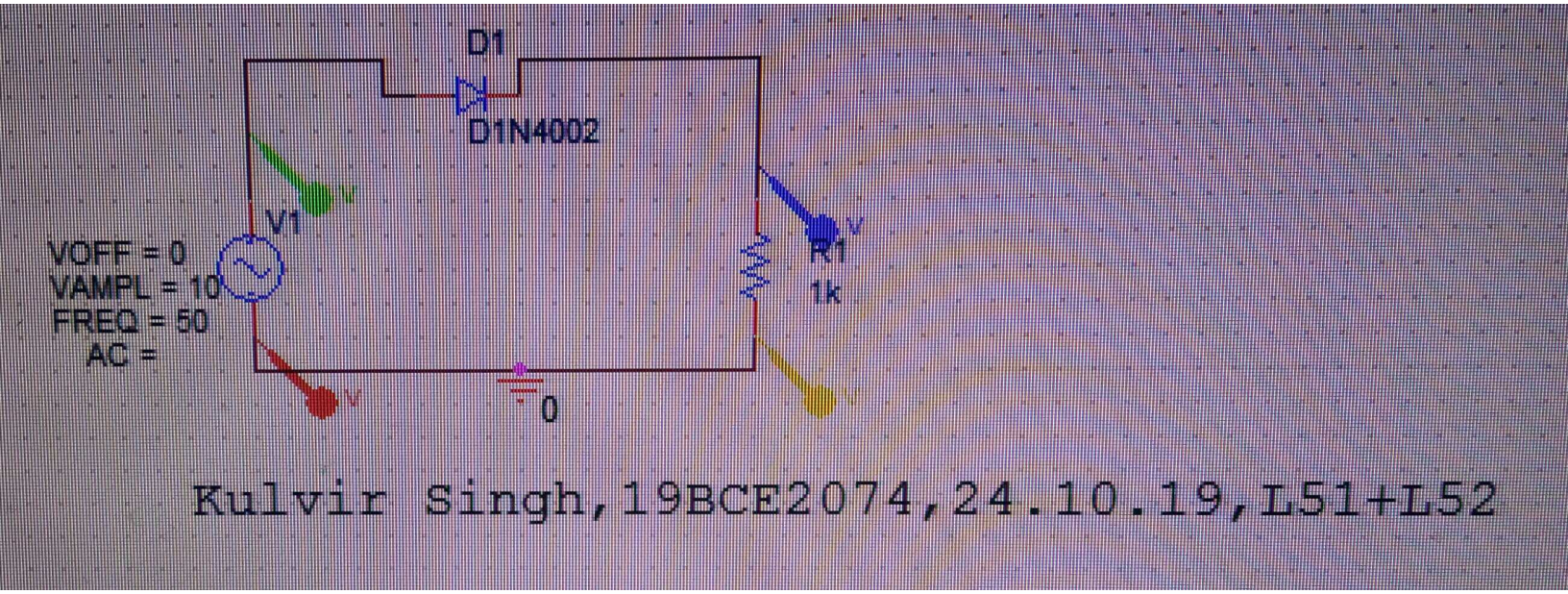

Kulvir Singh.19BCE2074.24.10.19.L1+52
0s
4ms
8ms
12ms
16ms
20ms
24ms
28ms

Kulvir Singh,19BCE2074,24.10.19,L51+L52

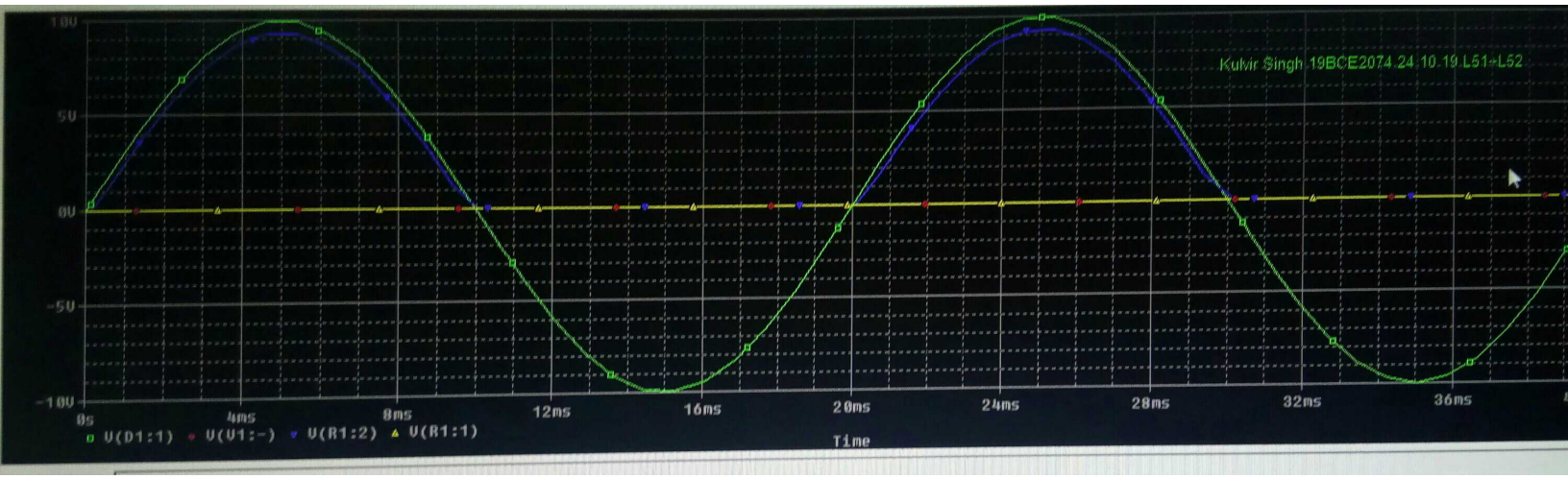



10V
5V
0V
-5V
0s
4ms
8ms
12ms
16ms
20ms
24ms
28ms
32ms
V(R1:2)
V(R1:1)
Time


4ms
8ms
12ms
16ms
20ms
24ms
28ms
32ms
V(D1:1)
V(V1:-)
Time



Kulvir Singh,19BCE2074,24.10.19,L51+L52


Kulvir Singh 19BCE2074 24.10.19 L51+L52
10V
5V
0V
-5V
-10V
0s
4ms
8ms
12ms
16ms
20ms
24ms
28ms
32ms
36ms
V(D1:1)
V(V1:-)
V(R1:2)
V(R1:1)
Time