**POWER ELECTRONICS LAB QUESTION**                               **TIME:1 HOUR**

1. Simulation of Three phase Bridge Voltage Source Inverter ($120^0$ mode) with (i) R, (ii) R-L load by using MATLAB-Simulink (phase and line voltage). BT17EE011
2. Simulate of single phase voltage controller for R, R-L, and R-L-E by using MATLAB-Simulink. (*firing angle=$60^0$ and $150^0$)   BT17EE017
3. Simulate step down chopper for R, R-L, and R-L-E load by using MATLAB-Simulink. (Duty cycle=30% and 50%)   BT18EE001
4. Simulation of Three phase Bridge Voltage Source Inverter ($180^0$ mode) with (i) R, (ii) R-L load by using MATLAB-Simulink (phase and line voltage)   BT18EE003
5. Simulate V-I characteristics of BJT and MOSFET.   BT18EE004
6. Simulate of single phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$30^0$ and $120^0$)  BT18EE005
7. Simulate of three phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$60^0$ and $150^0$)  BT18EE006
8. Simulate of single-phase half controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$30^0$ and $150^0$)   BT18EE007
9. Simulate step up chopper for R, R-L, and R-L-E load by using MATLAB-Simulink. (Duty cycle=40% and 60%).   BT18EE008
10. Simulation of Three phase Bridge Voltage Source Inverter ($180^0$ mode) with (i) R, (ii) R-L load by using MATLAB-Simulink (phase and line voltage)   BT18EE009
11. Simulate of three phase uncontrolled rectifier with R, R-L ad R-L-E load by using MATLAB-Simulink. BT18EE010
12. Simulate of single-phase half-wave controlled rectifier with R, R-L ad R-L-E load use freewheeling diode by using MATLAB-Simulink. (*firing angle=$30^0$ and $150^0$) BT18EE011
13. Simulate three phase full-wave uncontrolled rectifier in MATLAB Simulink with R, R-L and RLE load. BT18EE012
14. Simulate of single-phase half-controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$60^0$ and $120^0$)   BT18EE014
15. Simulate V-I characteristics of MOSFET and SCR.  BT18EE015
16. Simulate of single phase half controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$30^0$ and $150^0$)  BT18EE016
17. Simulate of single phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$45^0$ and $150^0$)  BT18EE017
18. Simulate of three phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$30^0$ and $120^0$)  BT18EE018
19. Simulate V-I characteristics of BJT and SCR.   BT18EE019
20. Simulate of three phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$45^0$ and $120^0$)   BT18EE020
21. Simulate step down chopper for R, R-L, and R-L-E load by using MATLAB-Simulink. (Duty cycle=40% and 60%)   BT18EE021
22. Simulation of Three phase Bridge Voltage Source Inverter ($180^0$ mode) with (i) R, (ii) R-L load by using MATLAB-Simulink (phase and line voltage)   BT18EE022

23. Simulate V-I characteristics of BJT and MOSFET.   BT18EE023
24. Simulate of three phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$45^0$ and $120^0$)   BT18EE024
25. Simulate of three phase uncontrolled rectifier with R, R-L ad R-L-E load by using MATLAB-Simulink.   BT18EE025
26. Simulation of Three phase Bridge Voltage Source Inverter ($180^0$ mode) with (i) R, (ii) R-L load by using MATLAB-Simulink (phase and line voltage)   BT18EE026
27. Simulate of three phase full-wave controlled rectifier for R, R-L, and R-L-E and also use freewheeling diode by using MATLAB-Simulink. (*firing angle=$45^0$ and $120^0$)   BT18EE027