



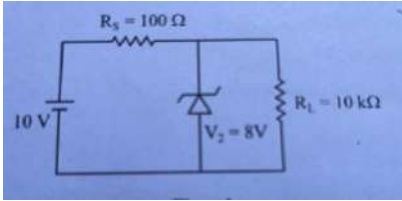
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312314 - Basic Electronics (Sem II)

As per MSBTE's K Scheme

AO/ DE/ EJ/ ET/ EX/ IC/ IE/ IS/ MU/ TE

Unit V	Regulators and Power supply	Marks - 14
S. N.	MSBTE Board Asked Questions	
1.	Define line regulation. State the formula for its regulation.	
2.	Explain basic block diagram of regulated DC power supply, draw its input and output waveforms.	
3.	Draw the circuit diagram for transistor series regulator and explain function of each component.	
4.	Describe the working of zener as voltage regulator.	
5.	State the need of DC regulated power supply.	
6.	Draw the block diagram of DC power supply. Explain the function of each block.	
7.	Determine output voltage V_o , load current I_L , zener current I_Z & power dissipation in zener diode for the circuit shown below.	
8.	Describe the working of zener diode as a voltage regulator with reverse characteristics of zener diode.	
9.	Define the term 'Voltage Regulation'	
10.	Define the term 'knee voltage' of P-N junction diode.	
11.	Sketch transistor shunt voltage regulator and explain how voltage regulation is done.	
12.	Sketch block diagram of D.C. regulated power supply and sketch waveform at each	

	stage.
13.	Define : Load regulation and Line regulation
14.	Draw basic block diagram of a DC regulated power supply.
15.	Sketch circuit diagram of transistorized series voltage regulator and explain its working.
16.	State any four applications of regulated D.C. power-supply.
17.	Sketch block diagram of an unregulated power supply and explain function of each block.
18.	State the need of DC regulated power supply.
19.	Define : Line regulation Load regulation
20.	Draw block diagram of DC regulated power supply and write function of each block.
21.	Determine output voltage V_0 , load current I_L , zener current I_Z & power dissipation in zener diode for the circuit shown below: 
22.	State the advantages of transistorized regulator
23.	Draw the block diagram of DC regulated power supply and describe the working of each block.
24.	Draw circuit of transistorized series voltage regulator and explain its operation.
25.	Describe the terms: Load regulation Line regulation
26.	Identify the output voltage which can be obtained from following regulator ICs i. 7805 ii. 7915
27.	Draw the block diagram of SMPS And Explain each block in brief
28.	Draw circuit diagram of DC regulated dual power supply for 12 v output using suitable regulated ICs
29.	Explain the working of SMPS with neat block diagram.

30.	Sketch the circuit diagram for dual voltage regulator using IC 78XX and 79XX to obtain $\pm 12V$ output
31.	State the necessity of regulated power supply. Define load and line regulation.
32.	Draw block diagram of SMPS. State its working principle.
33.	Describe block diagram of IC 723 regulator. State the working principle of IC723.
34.	Build the circuit diagram of dual Voltage regulator to get +12V deand-12Vdc using IC 7812and IC 7912 along with rectifier.
35.	Sketch the circuit diagram of Dual Voltage Regulator using IC 78XX and 79XX to obtain 12 V output voltage
36.	Draw the high voltage regulator using IC723 and explain its operation in brief.
37.	Draw the block diagram of smps and explain each block in brief
38.	Draw and explain the working of low voltage,low current generation(basic low voltage regulator) using IC723
39.	Draw the circuit diagram of DC regulated dual power supply of 12v output using suitable regulated IC

Thank You

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