

Ajay Kumar Garg Engineering College, Ghaziabad

Department of ECE

Sessional Test-1

Course: B.Tech

Session: 2024-25

Subject: Fundamental Of Electronics Engineering

Max Marks: 25

Semester: 1st

Section: S11-S20

Sub. Code: BEC101

Time: 1 hour

OBE Remarks: All questions are related to CO1.

Q.No	1	2	3	4	5	6	7
CO No.	CO1	CO1	CO1	CO1	CO1	CO1	CO1
Bloom's Level* (L1 to L6)	L2	L3	L2	L1,L6	L4	L5	L5

*Bloom's Level: L1: Remember, L2: Understand, L3: Apply, L4: Analyze, L5: Evaluate, L6: Create

Note: Answer all the sections.

Section-A

A. Attempt all the parts.

(3x2 = 6)

1. Discuss the formation of depletion layer in diode. Differentiate between N-type and P-type semiconductor.
2. Draw the V-I characteristics of Ideal P-N Junction Diode in forward and reverse bias condition.
3. Explain diode equation in brief and discuss the temperature effect on V-I characteristics.

Section-B

B. Attempt all the parts.

(3x4 = 12)

4. Explain the operation of full wave bridge rectifier with the help of a circuit diagram. Also sketch the input and output waveforms. Define its PIV and ripple factor.
5. With the help of neat diagram explain the working of voltage multiplier circuit by using diode.

6. Draw the output waveform of the Clipper circuit shown in following Fig.-1 with suitable calculation.

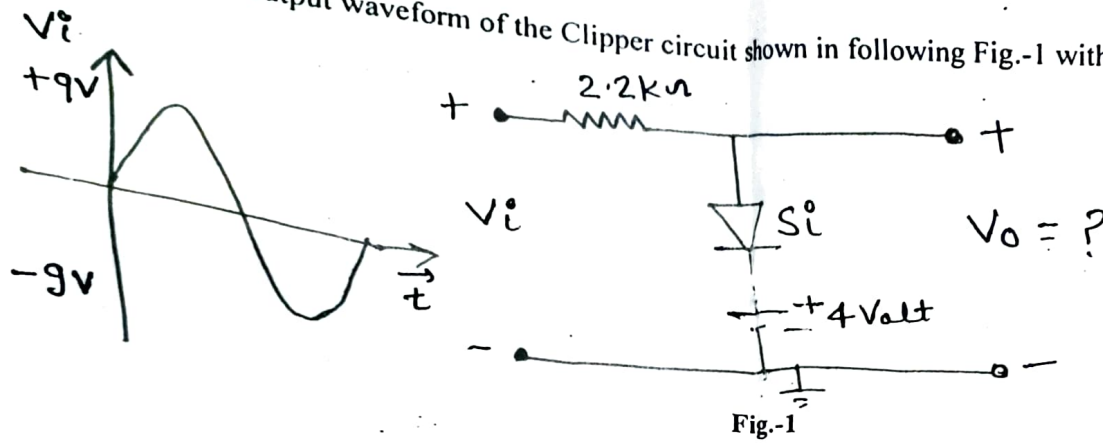


Fig.-1

Section-C

Attempt all the parts.

(1x7 = 7)

7. Draw the output waveform of the Clamper circuit shown in following Fig.-2 with suitable calculation.

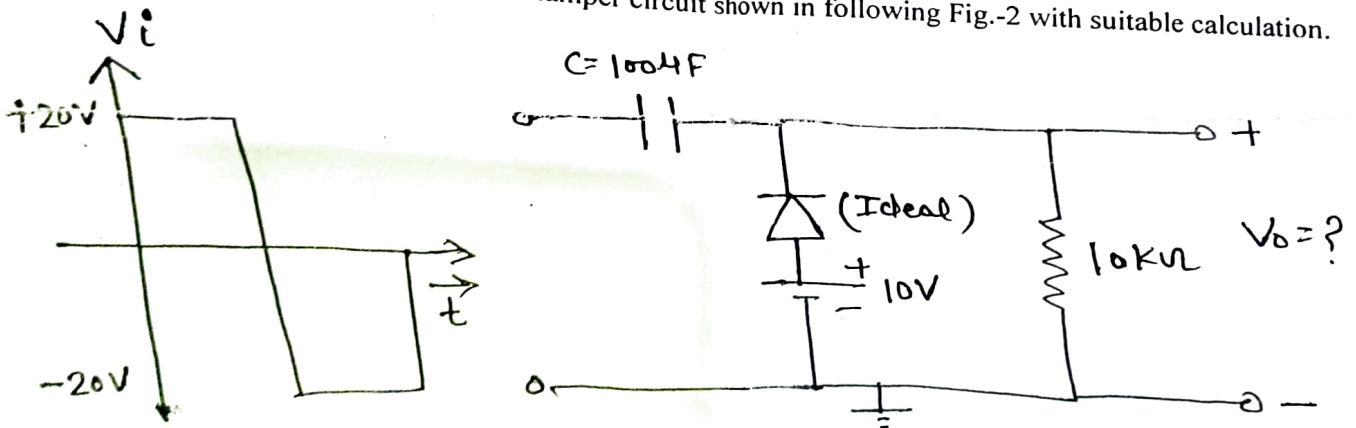


Fig.-2

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