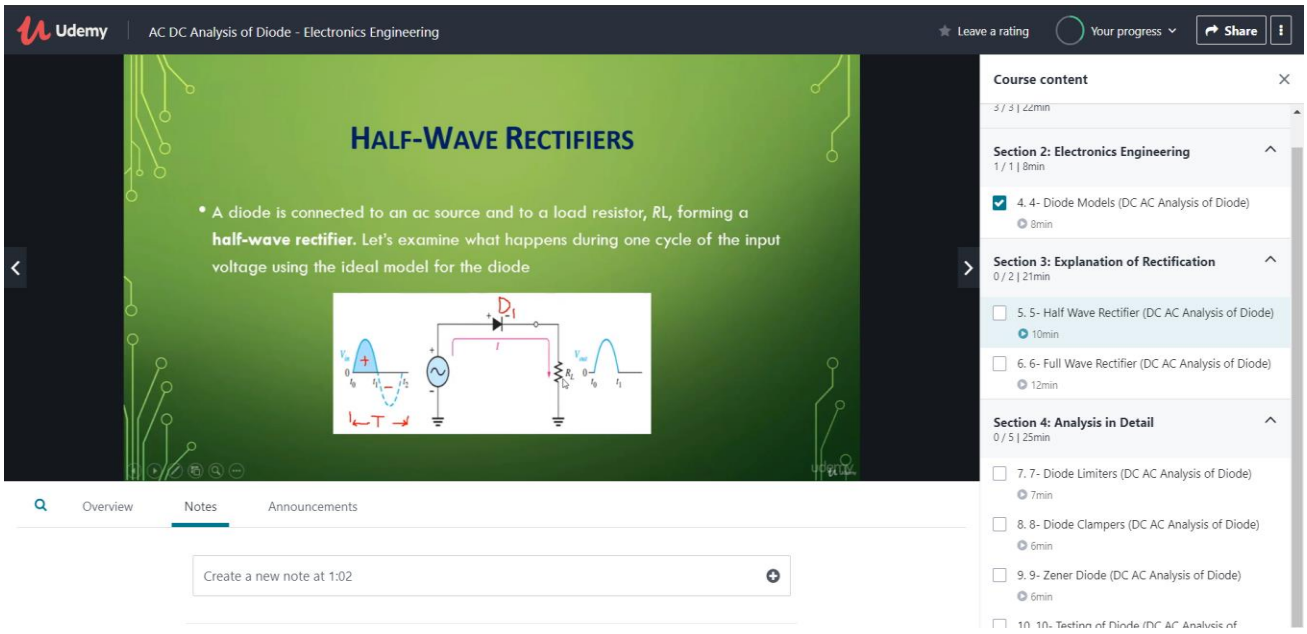
DAILY ASSESSMENT REPORT

Date:	**13 June 2020**	**Name:**	**Gagan M K**
Course:	**AC DC Analysis of Diode - Electronics Engineering**	**USN:**	**4AL17EC032**
Topic:	• Half Wave Rectifier (DC AC Analysis of Diode) • Full Wave Rectifier (DC AC Analysis of Diode) • Analysis in Detail • Diode Limiters (DC AC Analysis of Diode) • Diode Clampers (DC AC Analysis of Diode) • Zener Diode (DC AC Analysis of Diode) • Testing of Diode (DC AC Analysis of Diode)	**Semester & Section:**	**6th sem & 'A' sec**
GitHub Repository:	**Alvas-education-foundation/Gagan-Git**		

FORENOON SESSION DETAILS

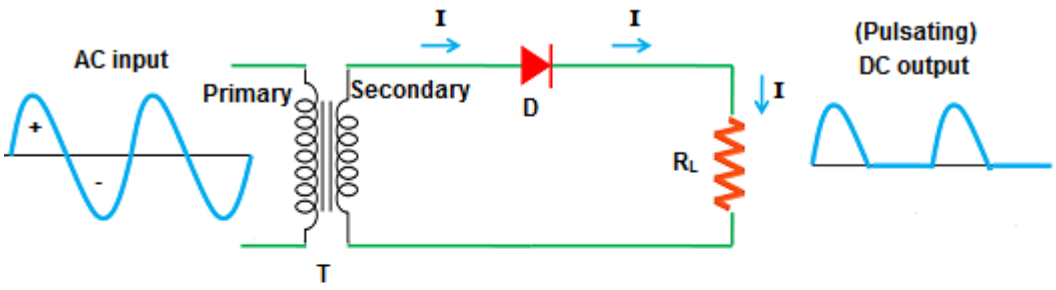
Image of session



Report – Report can be typed or hand written for up to two pages.

Explanation of Rectification:

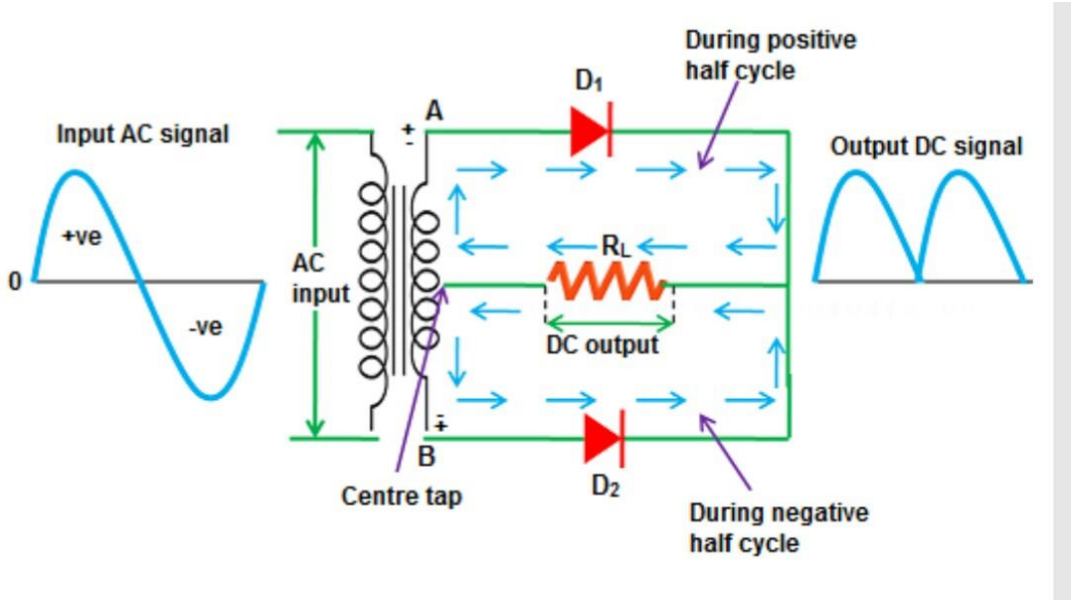
- **Half Wave Rectifier**



I = Current
D = Diode
R_L = Load resistor
T = Transformer
+ = Positive half cycle
- = Negative half cycle

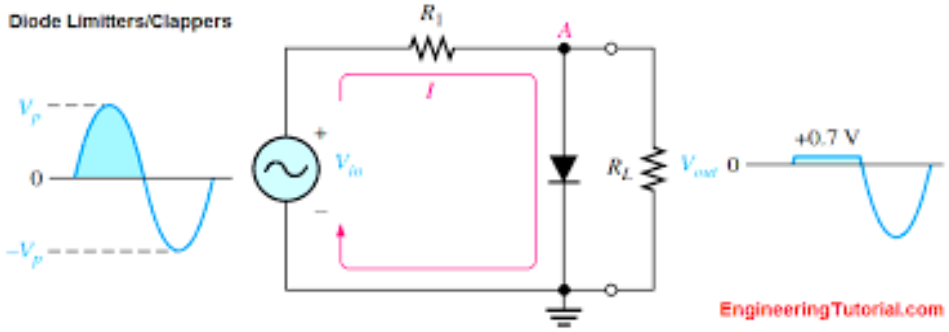
Half wave rectifier

- **A half wave rectifier is defined as a type of rectifier that only allows one half-cycle of an AC voltage waveform to pass, blocking the other half-cycle. Half-wave rectifiers are used to convert AC voltage to DC voltage, and only require a single diode to construct.**
- **Full Wave Rectifier**

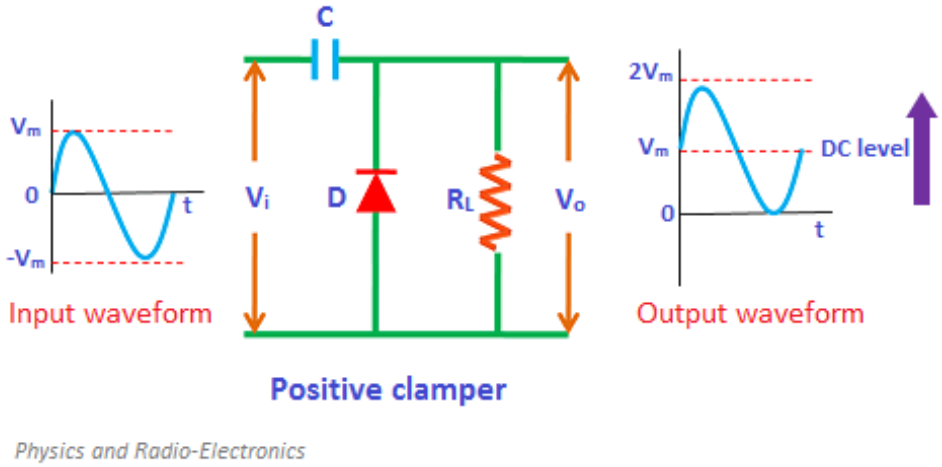


- **A Full Wave Rectifier is a circuit, which converts an ac voltage into a pulsating dc voltage using both half cycles of the applied ac voltage. It uses two diodes of which one conducts during one half cycle while the other conducts during the other half cycle of the applied ac voltage.**

- **Diode Limiters**

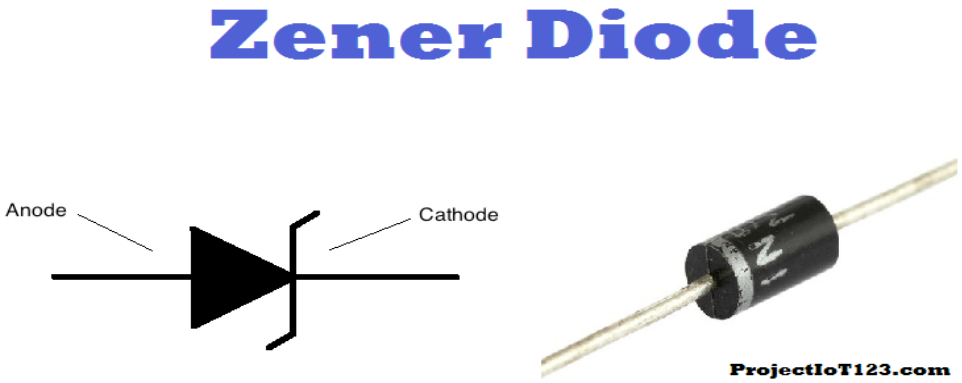


- **Diode Clipping Circuits. The Diode Clipper, also known as a Diode Limiter, is a wave shaping circuit that takes an input waveform and clips or cuts off its top half, bottom half or both halves together. This clipping of the input signal produces an output waveform that resembles a flattened version of the input.**
- **Diode Clampers**

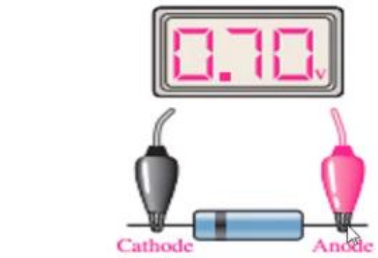


Physics and Radio-Electronics

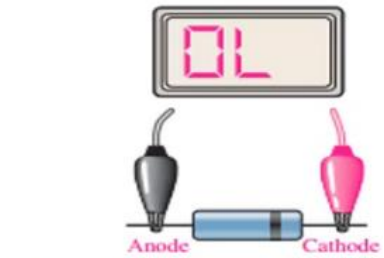
- **A Clamper Circuit is a circuit that adds a DC level to an AC signal. Actually, the positive and negative peaks of the signals can be placed at desired levels using the clamping circuits. As the DC level gets shifted, a clamper circuit is called as a Level Shifter.**
- **Clamper circuits consist of energy storage elements like capacitors. A simple clamper circuit comprises of a capacitor, a diode, a resistor and a dc battery if required.**
- **Zener Diode**



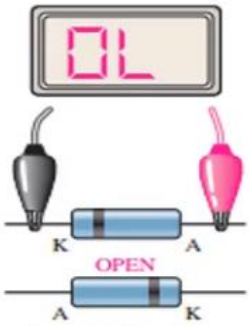
- **A Zener diode is a special type of diode designed to reliably allow current to flow "backwards" when a certain set reverse voltage, known as the Zener voltage, is reached. Zener diodes are manufactured with a great variety of Zener voltages and some are even variable.**
- **Testing of Diode**



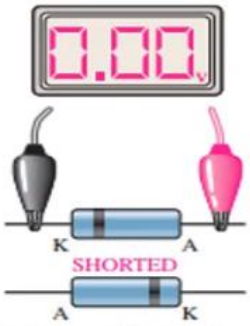
(a) Forward-bias test



(b) Reverse-bias test



(c) Forward- and reverse-bias tests for an open diode give the same indication.



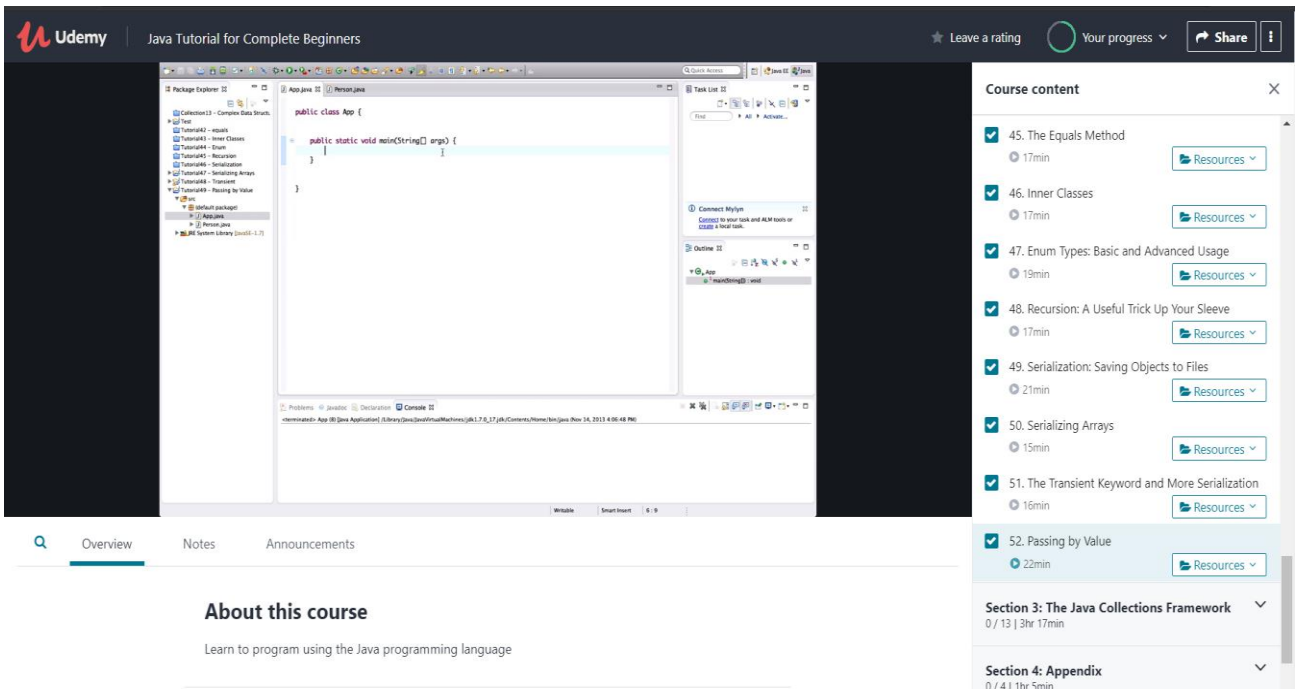
(d) Forward- and reverse-bias tests for a shorted diode give the same 0 V reading.

- **Make certain a) all power to the circuit is OFF and b) no voltage exists at the diode. Voltage may be present in the circuit due to charged capacitors.**
- **Turn the dial (rotary switch) to Diode Test mode ( ).**
- **Connect the test leads to the diode. ...**
- **Reverse the test leads.**

Date:	13 June 2020	Name:	Gagan M K
Course:	Java Tutorial for Complete Beginners	USN:	4AL17EC032
Topic:	• The Equals Method • Inner Classes • Enum Types: Basic and Advanced Usage • Recursion: A Useful Trick Up Your Sleeve • Serialization: Saving Objects to Files • Serializing Arrays • The Transient Keyword and More Serialization • Passing by Value	Semester & Section:	6th sem & 'A' sec

AFTERNOON SESSION DETAILS

Image of session:



Report – Report can be typed or hand written for up to two pages.

Java:

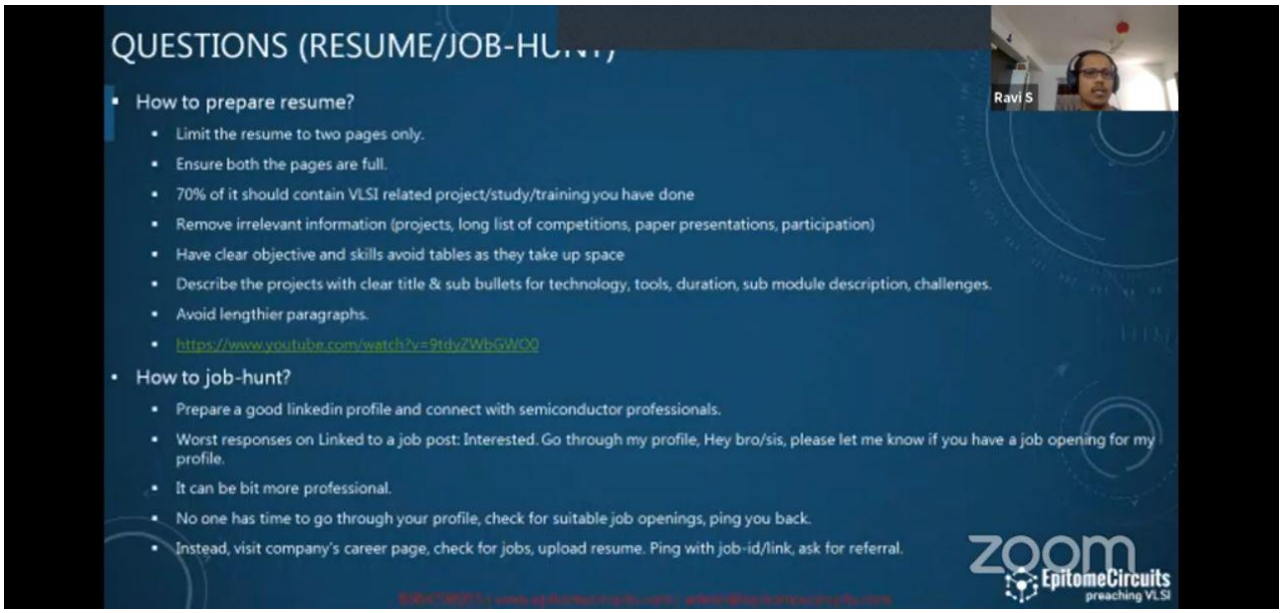
- **We learnt "The Equals Method"**
- **"Inner Classes" concept was learnt.**
- **Enum Types was taught along with Basic and Advanced Usage**
- **Recursion function was seen and a Useful Trick Up Your Sleeve was seen.**
- **Saving Objects to Files using "Serialization"**
- **Serializing Arrays was learnt in Java.**
- **The Transient Keyword and More Serialization was seen.**
- **Passing by Value is only way in Java!**

```java
package one;

//A Java program to show that we can change members using using
//reference if we do not change the reference itself.

class Test
{
    int x;
    Test(int i) { x = i; }
    Test()   { x = 0; }
}

class p_by_value
{
    public static void main(String[] args)
    {
        // t is a reference
        Test t = new Test(5);

        // Reference is passed and a copy of reference
        // is created in change()
        change(t);

        // New value of x is printed
        System.out.println(t.x);
    }

    // This change() doesn't change the reference, it only
    // changes member of object referred by reference
    public static void change(Test t)
    {
        t.x = 2020;
    }
}
```

- **The Equal Method Example**

```java
package one;
class Complex {
    private double re, im;

    public Complex(double re, double im) {
        this.re = re;
        this.im = im;
    }
}
public class equals {
    public static void main(String[] args) {
        Complex c1 = new Complex(10, 15);
        Complex c2 = new Complex(10, 15);
        if (c1 == c2) {
            System.out.println("Equal ");
        } else {
            System.out.println("Not Equal ");
        }
    }
}
```

“Attended a Webinar on 'Semiconductor as a Profession' in the webinar series of 'Future Ahead for Electronics Engineers' organized by Dept. of Electronics and Communication Engineering of Alva's Institute of Engineering and Technology, Moodbidri, Karnataka”



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