Lesson Plan

Course: B.Sc IV Sem Electronics

Paper: I - **Oscillators and Multivibrators**

Teacher name: Mr. SK Bathla

April 2021

|  |
| --- |
| **Feedback in Amplifier:-** Classification of Amplifiers (voltage, current, Transconductance, Transresistance amplifier), Feedback concept, calculation of transfer gain in degenerative and regenerative feedbacks, Feedback topologies, Effect of negative feedback on gain, Non-linear distortion, Frequency response, Effect of negative voltage shunt feedback on inputand output resistance, Effect of negative voltage series feedback on input and output resistance, Effect of negative current shunt feedback on input and output resistance, Effect of negative current series feedback on input and output resistance.  |

May 2021

|  |
| --- |
| **Power Amplifier:-** Basic Circuit and working only of: Class A large scale amplifier, push pull amplifier, transformer coupled amplifier, Class B amplifier, Class AB amplifier, Darlington-pair, efficiency. **Sinusoidal Oscillators:-** Principle of oscillations, condition for sustained oscillation (Barkhasen criterion), stability of oscillator, Principle, |

June 2021

|  |
| --- |
| working and frequency calculation of RF oscillators (Hartley oscillator, Colpitts oscillator, crystal oscillator) and AF Oscillators (Wien Bridge oscillator, R-C Phase-shift oscillator)**Multivibrator, Switching Devices & Circuits:-** AstableMultivibrator, BistableMultivibrator, MonostableMultivibrator using BJT, Silicon controlled Rectifier (SCR), Triac, Diac, Triangular waveform generator, Schmitt Trigger,  |

July 2021

|  |
| --- |
| 555 Timer: Block diagram of 555 and its application as Astable&MonostableMultivibrator. |