# Department of Computer Science and Engineering
# Semester: Summer, 2017
# Course Title- Electronic Device and Circuit

# Course Code- CSE 224(Mid Term Syllabus)

**Theory:**

Chapter: 5, 6 & 8 (From Ch-8, Beginning to Commonly Used Transistor Connection (page 29, word document, Lecture 3)

**Mathematical Problems**

## Chapter 6: Semiconductor Diode

**Example**: 6.12 - 6.18, 6.25- 6.30 (VK Mehta)

## Chapter 8: Transistors

**Example:** 8.1 – 8.15 (VK Mehta)

**Department of Computer Science and Engineering**
**Semester: Fall, 2016**
**Course Title- Electronic Device and Circuit**

**Course Code- CSE 224(Final Term Syllabus)**

1. **Transistor Biasing:**
   Faithful Amplification, Biasing (Base resistor method, Voltage-divider bias)
2. **Single Stage Transistor Amplifiers:**
   10.1, 10.4
3. **Multistage Transistor Amplifiers:**
   11.1, 11.2, 11.3 (Gain, frequency response, decibel gain, bandwidth), RC Coupled, Transformer-Coupled
4. **Amplifiers with Negative Feedback:**
   Positive feedback, Negative feedback, Principles of Negative Voltage Feedback In Amplifiers, Gain of Negative Voltage Feedback Amplifier, Advantages of Negative Voltage Feedback.
5. **Sinusoidal Oscillators:**
   14.1, 14.2, 14.3, 14.10, 14.11
6. **Op-Amp:**
   Characteristics, Applications (Op-Amp as Inverter, Non-inverter, Unity follower, Adder, Subtractor, Integrator, Differentiator, And Comparator) **[Basic Electronics: Solid State by B. L. Theraja]**

**Mathematical Problems:**
**(Amplifiers with Negative Feedback)** 13.1-13.8
**(Oscillators)** 14.3- 14.6 **[Principle of Electronics by V. K. Mehta]**
(**Op-Amp**) 31.1-31.7 **[Basic Electronics: Solid State by B. L. Theraja]**

**N.B. From Mid-term syllabus, Transistors (Chapter 8) will be also included in Final Exam.**