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**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)

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**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)

1. **Single Stage Transistor Amplifiers:**

10.1, 10.4

1. **Multistage Transistor Amplifiers:**

11.1, 11.2, 11.3 (Gain, frequency response, decibel gain, bandwidth),RC Coupled, Transformer-Coupled

1. **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.

1. **Sinusoidal Oscillators:**

14.1, 14.2, 14.3, 14.10, 14.11

1. **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.**