

## ECE 443 APPLIED ELECTRONICS - LAB 2

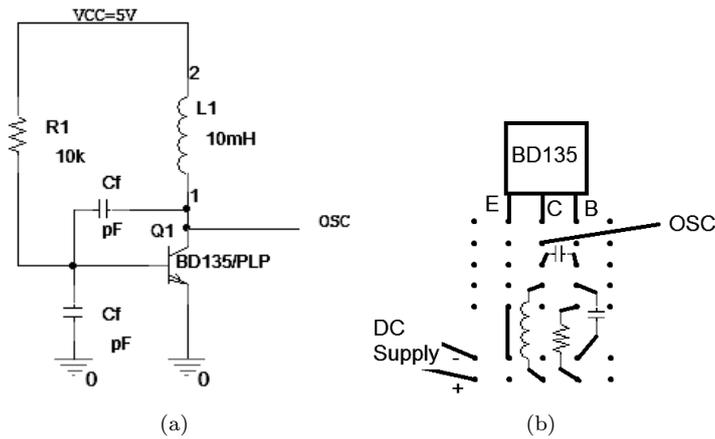
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**Abstract**—This lab experiment aims to teach students how to build an LC feedback oscillator.

### 1. METHODS

Parts: BD135 or BD137 bjt transistor,  $R=10k$ , Inductor, 20pF, 60pF, 100pF, 150pF caps. 1. Connect the following circuit (Fig.1a). Note



**Figure 1.** a) Circuit Diagram, b) Circuit layout

that the feedback circuit contains stray capacitors and inductors that also affect the frequency characteristics.

2. Measure the resonance frequency for each Cf capacitors used i.e. 20pF, 60pF, 100pF, 150pF. Draw the waveforms in your lab notebook, and record the frequencies.