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MID SEMESTER EXAMINATION (SUMMER SEMESTER ECE)

COURSE CODE: 13B1WEC731

MAX. MARKS: 50

COURSE NAME: CMOS ANALOG CIRCUIT DESIGN

MAX. TIME: 2 HRS.

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*Note: All questions are compulsory. Carrying of mobile phone during examination will be treated as case of unfair means. Use of calculator is permitted. All questions carry equal marks.*

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**Q1:** Design a low pass filter at a cutoff frequency of 1kHz with a passband gain of 2.

**Q2:** Design a wide band-pass filter with  $f_L = 200\text{Hz}$ ,  $f_H = 1\text{kHz}$  and a passband gain = 4.

**Q3:** Design a phase shift oscillator so that  $f_o = 200\text{Hz}$ .

**Q4:** With the help of a suitable diagram explain triangular wave generator.

**Q5:** Explain the working of Schmitt Trigger using the suitable diagram.

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