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**PG CBCS**  
**M.Sc. Semester-IV Examination, 2021**  
**PHYSICS**  
**PAPER: PHS 495B**  
**PRACTICAL**  
**(SOLID STATE PHYSICS-II)**

**Full Marks: 50**

**Time: 2 Hours**

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**Answer any TWO questions from the following:**

**25×2=50**

1. Design of a Schmitt trigger circuit using  $\mu A$  741.
2. Design and performance study of a VCO.
3. Design and performance study of a PLL.
4. Design a Pulse Width Modulation using 555 Timer IC.
5. To study the input stage of an Op-amp using discrete components and find out the differential mode gain.
6. PSIPCE study the input stage of an Op-amp using discrete components and find out the differential mode gain.

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