SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.
B.Sc. END SEMESTER EXAMINATIONS APRIL-2022
SEMESTER - VI
08UPHCT6016 **&** UPH/CT/6016 - **Integrated Electronics**

Total Duration : 3 Hrs. **Total Marks : 60**

Section A

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. List out the basic logic gates and explain it with neat diagram.
2. Prepare the truth tables for half adder and full adder.
3. Sketch the R-S flip flop block diagram and briefly describe it.
4. Explain the characteristics of OP-AMP and revise the formula for CMRR.
5. Define astable multivibrator. Compute the frequency of oscillations, while an astable multivibrator, the value of R1 = R2 = 15KΩ and C1 = C2 = 0.005μF.
6. Relate the NAND and NOR as the universal building blocks.
7. Describe the J.K. master slave flip flop.
8. Differentiate Multiplexer and Demultiplexer.

Section B

Answer any **THREE** questions $(3 \times 10 = 30$ Marks)

9. Explain the methods of simplification of logic circuit and prepare the truth tables.
10. Examine the full adder and full subtractor and give the two examples for working operations.
11. Diagnose the ring and twisted ring counter with neat diagram.
12. Evaluate the Wien's bridge oscillator and solve the frequency of a Wien's bridge oscillator is 3KHz.If the value of the resistor in the bridge network is 200K ohm, find the value of the capacitors.
13. Recommend the ADC Successive Approximation method and conclude it.

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