11. A dual slope ADC uses a 16-bit counter and a 4MHz clock rate. The maximum input voltage is 10V. The maximum integrator output voltage should be -8V when the counter has cycled through $2^n$ counts. The capacitor used in the integrator is .1µF. Find the value of resistor R of the integrator if the analog signal is 4.129V. Find the corresponding binary number.

12. Explain the working of op-amp series regulator.

13. Write short notes on IC voltage regulators.

END