ECE 113: Basic Electronics Quiz-3

Duration: 25 Minutes   Total Points: 15

Question-1: Find the value of variable resistance R_S, so that maximum power transfer from the 10V source to the 100 ohm load in the given following circuit (Figure-1).   **(5 Points)**
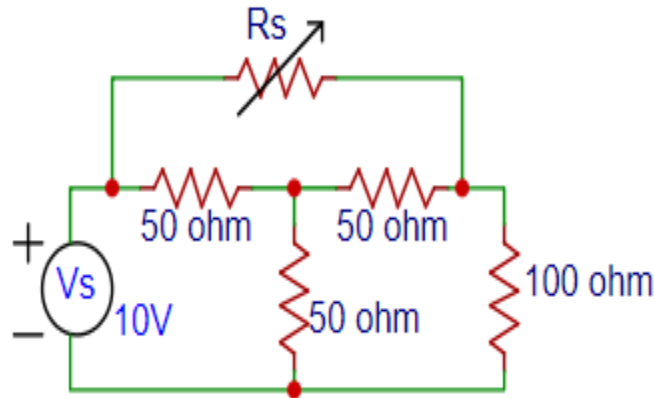

Figure 1

Question-2: Initially the two capacitors of 40F & 20F are connected in series to voltage source of 90V. When these two capacitors are fully charged then they are disconnected & again these two capacitors are connected in parallel. Find voltage across each capacitor in parallel combination.   **(5 Points)**

Question-3: Find the value of equivalent capacitance between the terminals **P** & **Q** in the given following circuit (Figure-2).   **(5 Points)**
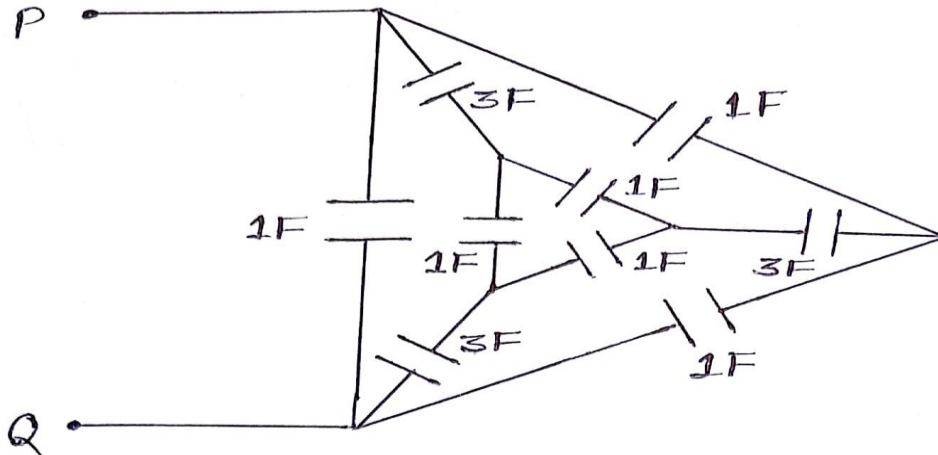

Figure 2