Worksheet: Electrostatic Potential and Capacitance

Maharashtra State Board · Class 12 · Physics · 5 questions · 14 marks

Name: _____ Date: _____ Score: _____ / 14

Q1. Charges 2 uC and -2 uC are 0.1 m apart. Find the potential at the midpoint. *[2 marks]*

Q2. A parallel plate capacitor has area 0.1 m^2 and separation 1 mm. Find its capacitance. *[2 marks]*

Q3. Find the equivalent capacitance of 4, 6, 12 uF in parallel and the charge stored at 10 V. *[3 marks]*

Q4. A dielectric K = 3 is inserted in a 5 uF capacitor charged to 20 V with the battery disconnected. Find new C, V, and energy. *[3 marks]*

Q5. A 10 uF capacitor charged to 100 V is connected to an uncharged 10 uF capacitor. Find the energy loss. *[4 marks]*