

-
- | | |
|--|--|
| <p>1. A parallel plate capacitor is charged by a battery. If the battery is then disconnected and the spacing between the plates is decreased. What happens to the charge and energy stored on the capacitor?</p> <p>A) Both the charge and the energy remain constant.</p> <p>B) The charge remains constant and the energy increases.</p> <p>C) The charge remains constant and the energy decreases.</p> <p>D) Both the charge and the energy increase.</p> <p>E) Both the charge and the energy decrease.</p> <p>2. A capacitor has a capacitance of 4.0×10^{-4} F. If it is charged to a potential difference of 300 volts, the amount of energy stored in it is most nearly</p> <p>A) 0.0036 J</p> <p>B) 0.03 J</p> <p>C) 0.06 J</p> <p>D) 9 J</p> <p>E) 18 J</p> <p>3. How much work is required to charge a 40 mF capacitor to a potential difference of 200 V?</p> <p>A) 0.8 J</p> <p>B) 1.6 J</p> <p>C) 80 J</p> <p>D) 160 J</p> <p>E) 800 J</p> | <p>4. A 10 μF capacitor is charged to a potential difference of 200 kV in 20 s. What is the average power delivered to the capacitor in this time?</p> <p>A) 100 W</p> <p>B) 200 W</p> <p>C) 10 kW</p> <p>D) 20 kW</p> <p>E) 40 kW</p> <p>5. A capacitor is charged to a potential of 400 V and stores a charge of 2 mC in 5 s. What is the average power delivered to the capacitor in this time?</p> <p>A) 0.08 W</p> <p>B) 0.16 W</p> <p>C) 10 W</p> <p>D) 32 W</p> <p>E) 80 W</p> <p>6. A 10 μF capacitor is charged to a potential difference of 20 V. The electric energy stored in the capacitor is</p> <p>A) 2×10^{-5} J</p> <p>B) 2×10^{-4} J</p> <p>C) 4×10^{-4} J</p> <p>D) 2×10^{-3} J</p> <p>E) 4×10^{-3} J</p> |
|--|--|
-

Answer Key
E Fields in between Plates MC Questions [Mar 28, 2011]

1. B
 2. E
 3. E
 4. C
 5. A
 6. D
-

Name _____

Class _____

Date _____

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____