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# NEET ELECTROSTATIC POTENTIAL AND CAPACITANCE — CAPACITORS AND CAPACITANCE, PARALLEL PLATE CAPACITOR — PYQS

**Max. Marks:** 20 **Questions:** 5

## Section A (MCQ) — 5 questions

**Q.1** If the plates of a parallel plate capacitor connected to a battery are moved close to each other, then

A. the charge stored in it, increases.
B. the energy stored in it, decreases.
C. its capacitance increases.
D. the ratio of charge to its potential remains the same.
E. the product of charge and voltage increases.

Choose the most appropriate answer from the options given below: [NEET (UG) 2024]

(1) A, B and E only (2) A, C and E only
(3) B, D and E only (4) A, B and C only

Scan or tap for the full solution

**Q.2** The capacitance of a capacitor with charge q and a potential difference V depends on [RE-NEET (UG) 2024]

(1) both q and V
(2) the geometry of the capacitor
(3) q only
(4) V only

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**Q.3** The distance between the two plates of a parallel plate capacitor is doubled and the area of each plate is halved. If C is its initial capacitance, its final capacitance is equal to [NEET (UG) 2022 (Phase 2)]

(1) $\frac{C}{4}$ (2) 2C (3) $\frac{C}{2}$ (4) 4C

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**Q.4** The electrostatic force between the metal plates of an isolated parallel plate capacitor C having a charge Q and area A, is [NEET 2018]

(1) Independent of the distance between the plates
(2) Linearly proportional to the distance between the plates
(3) Proportional to the square root of the distance between the plates
(4) Inversely proportional to the distance between the plates

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**Q.5** A parallel plate air capacitor is charged to a potential difference of V volts. After disconnecting the charging battery the distance between the plates of the capacitor is increased using an insulating handle. As a result the potential difference between the plates [AIPMT 2006]

(1) increases (2) decreases
(3) does not change (4) becomes zero

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## ANSWER KEY

| Ques. | 1 | 2 | 3 | 4 | 5 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ans. | 2 | 2 | 1 | 1 | 1 | | | | | | |