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Competency Based Test (2024-25)
Class XII Month: April-2024
Topic: Electric Charges and Fields

1. Charge produced by friction is:

- (a) positive.
- (b) negative.
- (c) less positive and more negative.
- (d) equal and opposite.

Answer: (d) Equal and opposite

2. The glass rod when rubbed with silk gets positively charged. It implies that:

- (a) the rod has gained some extra proton.
- (b) the rod has gained some extra electrons.
- (c) rod has lost some proton.
- (d) rod has lost some electrons.

Answer: (d) rod has lost some electrons.

3. When an object is charged negatively by friction it implies that it has:

- (a) gained some electrons.
- (b) lost some electrons.
- (c) gained some protons.
- (d) lost some protons.

Answer: (a) gained some electrons.

4. On charging two metallic spheres of same mass:

- (a) the mass of a positively charged sphere increases.
- (b) the mass of both will remain the same.
- (c) the mass of a negatively charged sphere will increase.

(d) none of the above.

Answer: (c) the mass of a negatively charged sphere will increase.

5. A positively charged glass rod attracts some objects, this object will be:

(a) positively charged

(b) negatively charged

(c) negatively charged or with no charge on it

(d) positively charged or without charge

Answer: (c) negatively charged or with no charge on it

6. The correct test for electrification is:

(a) attraction

(b) repulsion

(c) induction

(d) friction

Answer: (b) repulsion

7. The best conductor of electricity is:

(a) gold

(b) copper

(c) silver

(d) platinum

Answer: (c) silver

8. When an insulated conducting sphere with 4 coulomb of charge, is placed quite close to the other uncharged sphere, then the charge produced on the other sphere in coulomb will be:

(a) - 4

b) + 4

(c) - 2

(d) + 3

Answer: (a) - 4

9. A glass rod rubbed against silk repels an object suspended by means of a silk thread. The object therefore is:

(a) negatively charged

(b) unchanged

(c) positively charged

(d) unchanged and insulated

Answer: (c) positively charged

10. Which of the following forces have infinite range:

(a) strong nuclear force

(b) gravitational force

(c) electric force

(d) both gravitational and electric force

Answer: (d) both gravitational and electric force