

## WORK – SHEET -1

1. Who suggested the possibility of two types of charges?
2. What is meant by electrification by friction?
3. During electrification by friction, is there any transfer of mass?
4. “When a glass rod is rubbed with silk, the glass rod gets positively charged” why ?
5. “There is force of repulsion between two like charges. But there is no force of repulsion between two masses” why?
6. Is it possible to charge a body first positively and then negatively by suitably rubbing with some other materials ? If so, give an example.
7. From where do you get the energy for separating the charges?
8. Explain what is meant by the quantisation of charge.
9. A quark has a charge of  $(1/3)e$ . Do you think that this is against the law of quantisation of charge ? Give reasons for your answer.
10. “Electric charge is conserved. But mass is not conserved.” Why?
11. Explain why charges are transferred by the electrons?
12. What are the similarities and differences between Newtons law of gravitation and Coulomb’s law?
13. A balloon is charged negatively by rubbing and then clings to a wall. Is it necessary that the wall is positively charged ? Why does the balloon eventually fall?
14. If electrons were negatively charged and protons were positively charged what would have happened?
15. “Free electrons are called electron gas” why?