HOTS CLASS-VI(PHYSICS) FINAL TERM(2017-18)

1. Why do we see a deflection in the compass needle when it is placed near a current carrying conductor.
2. In a coil, the current is flowing in the clockwise direction at end A and anticlockwise direction at end B. A freely suspended magnet is brought near the coil with its N-pole facing towards end B. What will you observe?
3. We do not see the shadow of an aeroplane flying high up in the sky. Does this mean that it does not cast its shadow on the earth's surface? Explain.
4. How does the length of the shadow vary with the angle at which the light falls on an object?
5. Under what condition do we see the annular solar eclipse?
6. Ideally, a plane mirror should be made from a thin glass. Why?
7. While storing bar magnets in a box, precaution is taken to keep them in pairs with their opposite pole facing each other. A piece of wood is placed between them and two soft iron pieces are placed at Two ends. Explain the reason behind this arrangement.
8. Why is it easier to slide a heavy box on the floor when it is already in motion?
9. What is the working principle of maglev train?
10. Why are electrical devices like refrigerators, electric oven, toasters etc connected with a three-pin plug to the socket.