









on oxygen (O<sub>2</sub>) molecule. The higher energy UV radiations split apart some molecular oxygen (O<sub>2</sub>) into free oxygen (O) atoms. These atoms then combine with molecular oxygen to form ozone. (1 mark)

*Alternatively accept the following equations with the correct molecular formulae. No mark to be assigned if molecular formulae are not correct, when only the equation is written.*



- b. Ozone shields the surface of the earth / protects living organisms from ultraviolet (UV) radiation released by the sun. (½ mark)

Chlorofluorocarbons (CFCs) (½ mark) which are used as refrigerants / in fire extinguishers (½ mark) lead to depletion of ozone layer.

### SECTION - C

14	<p>a. Tt (1 mark)</p> <p>b. Traits like 'T' are called dominant traits, while those that behave like 't' are called recessive traits./Alternatively accept the definition of dominant and recessive traits with examples of T and t respectively /Alternatively accept the law of Dominance with examples of T and t. (1mark)</p> <p>c. Out of 800 plants 600 plants will be tall and 200 plants will be small (1 mark), 1 TT: 2Tt: 1tt (1 mark)</p> <p><b>OR</b></p> <p>In the cross between Tt X tt, 400 Tall (Tt) and 400 short (tt) plants will be produced. (1 mark)</p> <p>1Tt:1tt (1 mark)</p>	4
15	<p>a. Sir is trying to demonstrate the principle of Electromagnetic induction. (1 mark)</p> <p>b. There will be induced current in the coil due to relative motion between the magnet and the coil. Changing the magnetic field around the coil generates induced current. (½ + ½ mark)</p> <p>c. Using a stronger magnet, using a coil with more number of turns. (2 marks)</p> <p><b>OR</b></p> <p>When the magnet moves into the coil, the ammeter shows a momentary deflection towards one side say left. (½ mark)</p> <p>When the magnet moves out of the coil, the ammeter shows a momentary deflection</p>	4

now towards right.

( $\frac{1}{2}$  mark)

This is due to changing magnetic field /flux associated with the coil as the magnet moves in and out.

Alternatively, the flux increases when the magnet goes in and it decreases when the magnet goes out.

(1mark)