

Answer 10

(a)

- i. End A will have a positive charge.
- ii. End B will have a negative charge.
- iii. The cap of the electroscope will have a negative charge.
- iv. The charge on the gold leaves will be negative.
- v. Leaves will diverge by repelling each other.
- vi. If the electroscope is now earthed then the charge on metal rod will be positive.

(b) A is the switch; B is the battery cell; C is the ammeter; D is the resistance; E is the voltmeter; F is the variable resistance.

(c)

- i. The magnetic strength reduces to half.
- ii. The magnetic strength reduces to half.
- iii. Not all iron bars are magnets because the molecular magnets present in the iron bars are randomly aligned. For an iron bar to be a magnet, the molecular magnets should be aligned in one direction.