

30 The lamps on a bicycle are powered by a simple electrical generator.

A permanent magnet rotates around a stationary coil of wire wound on an iron core.

Which statement is correct?

- A** The current in the lamps decreases as the speed of rotation increases.
- B** The current in the lamps decreases when the magnet is replaced by a stronger magnet.
- C** The output electromotive force (e.m.f.) will be higher if the gap between the magnet and the coil is bigger.
- D** The output e.m.f. will be higher if there are more turns on the coil.