

- 9** When a frictionless and well-insulated bicycle pump is used to pump up a tyre, the air in the tyre becomes hotter than the surrounding air.

Which of the following statements best explains this observation?

- A** The internal energy increases because thermal energy is supplied and work is done on the air.
- B** Work is done on the air and since little thermal energy escapes, the internal energy increases.
- C** Work is done on the air and the internal energy remains unchanged.
- D** After compression the air collide more frequently.

- 10** A straight length of wire is bent to form a circle about a fixed axis with constant angular velocity.