

20 In a simple car electrical system, the following components are used.

- a 12 V battery
- a heater that operates at 12 V
- a motor that operates at 12 V
- four lamps, each operating at 12 V
- switches

The circuit needs to be set up so that all the components operate at their correct voltage.

The motor and heater must be able to be switched on and off independently.

The four lamps need to be switched on together using a single switch, but independently of the motor and the heater.

Which diagram shows the correct arrangement?

