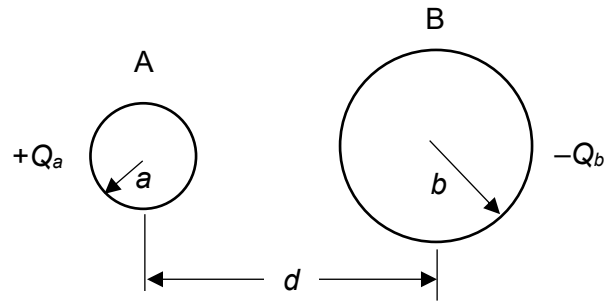


- 20** A and B are two large conducting spheres, of radii  $a$  and  $b$  and carrying charges  $+Q_a$  and  $-Q_b$  respectively. They are placed a short distance  $d$  apart.



Which of the following statements about the magnitude of electrostatic forces  $F$ , between the spheres is true?

**A**  $F = \frac{Q_a Q_b}{4\pi\epsilon_0 d^2}$

**B**  $F = \frac{Q_a Q_b}{4\pi\epsilon_0 (d - a - b)^2}$

**C**  $F > \frac{Q_a Q_b}{4\pi\epsilon_0 d^2}$

**D**  $F > \frac{Q_a Q_b}{4\pi\epsilon_0 (d - a - b)^2}$