As the capacitor shown below is charged with a constant current $I$, at point $P$ there is a

1. constant electric field.
2. changing electric field.
3. constant magnetic field.
4. changing magnetic field.
5. changing electric field and a magnetic field.
For a charging capacitor, the total displacement current between the plates is equal to the total conduction current $I$ in the wires. The capacitors in the diagram have circular plates of radius $R$. In $(a)$, points $A$ and $B$ are each a distance $d > R$ away from the line through the centers of the plates; in this case the magnetic field at $A$ due to the conduction current is the same as that at $B$ due to the displacement current. In $(b)$, points $P$ and $Q$ are each a distance $r < R$ away from the center line. Compared with the magnetic field at $P$, that at $Q$ is

1. bigger.
2. smaller.
3. the same.
4. need more information.