Optimum Orientation of Receiver

Solution:

The correct answer is a.)

Since current flow occurs along the length of the receiver, and maximum current is achieved when the receiving antenna is held parallel to the transmitter (since the light bulb is brightest in this position), the electric field intensity of the received waves must be maximum when the receiving antenna is parallel to the transmitter. Thus, the electric field must be polarized along the length of the transmitting antenna, and this must correspond to the position for optimum reception.