8.45 A 2 GHz plane wave in air is incident upon a conducting medium with $\varepsilon_r = 4$ and $\sigma = 2$ S/m at an incidence angle of 60°. The wave is perpendicularly polarized. Use Module 8.4 to compute:

(a) The reflectivity and transmissivity.

(b) The effective refraction angle.

Solution: **(a)** According to Module 8.4,

$$R = 0.7,$$

$$T = 0.3.$$

(b) Refraction angle = 14.78°.