

PHYSICS – 201
(Term 061)
QUIZ # 4

Instructor: Dr. Al-Solami

Student's Name _____ ID # _____ Sec _____

Q. 1 A camera lens with index of refractor C of 1.5 is coated with a thin transparent film of index of refraction of 1.25. If this coating is to eliminate by interference the reflection of light of wave length of 550 mm. What is the minimum film thickness needed?

Q. 2 An object is 44 cm from a screen. How far from the object a lens of focal length 11cm be placed to form an image of the object on the screen?

Q. 3 A concave shaving mirror has a radius of 35.0 cm. It is positioned so that the (upright) image of the man's face is 2.5 times the size of the face. How far is the mirror from the face?

Q. 4 A Young's experiment is performed with blue light ($\lambda = 500 \text{ nm}$). The slits are 1.2 mm apart and the viewing screen is 5.4 m from the slits. How far apart are the bright fringes?