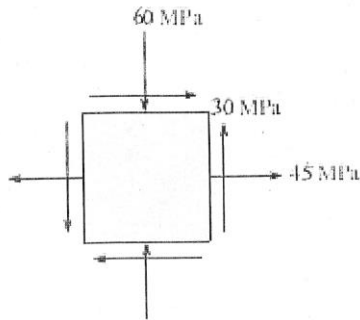


MAE244 – Lab 4 Prelab quiz Photoelasticity analysis by stress-optical law

NAME: _____ SECTION _____ I.D.# _____.

1. Briefly describe what is stress-optical law

2. What is the isoclinic angle?



3. For isochromatics, monochromatic light (dark field) will produce black fringes which are also produced by a parallel arrangement (light field) of the polarizer and the analyzer. What is the relationship between light and dark field fringe order?

4. Isoclinic fringe means all the points in this fringe have the same _____ and isochromatic fringe means all the points in this fringe have the same _____.

5. Quarter wave plane ($\lambda/4$) oriented 45° in the circular polariscope to the polarizer will remove _____ leaving _____.

NAME: _____ SECTION _____ I.D.# _____.

6. As shown, a ring loaded in diametral compression (top and bottom), where is the max. stress location and the corresponding max. fringe order ? (skip the top and bottom loading region)

